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AN EXAMINATION OF THE LEISURE MOTIVATIONS AND SATISFACTIONS OF PARTICIPANTS ATTENDING THE EDMONTON SPACE AND SCIENCE CENTRE

BY

© STEVEN RONALD LEARD

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of MASTER OF ARTS.

DEPARTMENT OF RECREATION AND LEISURE STUDIES

EDMONTON, ALBERTA
SPRING, 1992

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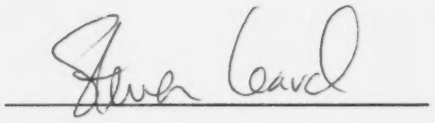

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled **AN EXAMINATION OF THE LEISURE MOTIVATIONS AND SATISFACTIONS OF PARTICIPANTS ATTENDING THE EDMONTON SPACE AND SCIENCE CENTRE** submitted by **STEVEN RONALD LEARD** in partial fulfillment of the requirements for the degree of **MASTER OF ARTS** in **RECREATION**.

Dr. J. James

Dr. E. Miklos

Dr. S. Mohsen

Date April 21, 1992

Dedication

A special thank you to my parents, Ron and Elaine, for all their support over the years. Without their love and guidance my departure to Edmonton may never have occurred.

A special thank you to Jan James for the support and encouragement that she has shown since my arrival in the "City of Champions".

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Abstract

In recent years research in the area of leisure motivation and satisfaction has focused on why people participate in leisure activities. The intent of this study was to explore the motivations and satisfactions of visitors to the Edmonton Space and Science Centre (ESSC) in an attempt to understand more fully why individuals might return to participate in future leisure programs or activities. Visitors attending programs at the ESSC during the spring of 1991 served as the source of data. The research was conducted in two phases over a two week period. During the first phase, visitors received a questionnaire on their motives for visiting and attending programs. During the second phase, a second sample group of visitors responded to a questionnaire measuring degree of satisfaction with the program experiences. The data in the first phase was compared with that collected during the second phase to examine various demographic differences, gender and show selection, reasons for visiting and not visiting more often, differences in means for motivation and satisfaction and reasons for visiting and not visiting again in the future. The motivations identified with the highest means were education related. Motivations with the lowest reported means were related to social. Satisfactions identified with the highest means were related to experiencing stimulation and educational opportunities. Only ten of 38 items were found to be significantly different. Satisfactions with the lowest reported means were related to social or skill development. Relatively few differences between motivation items and satisfaction items were observed. The results and recommendations of the study provide insight on why visitors might or might not return to visit the ESSC again in the future and the intent they have shown to do so.

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CHAPTER I

STATEMENT OF THE PROBLEM

Introduction

Researchers and practitioners in the field of leisure have been witness to an explosion in the number of people experiencing leisure activities over the past several decades. Not only are more participants involved in leisure activities, there is also a wider base of competition among providers of leisure programs and services. The U.S. News and World Report (1981) indicated that leisure participants consume in excess of $224 billion worth of programs, goods and services annually. A market of this size suggests the existence of a healthy industry. However, today both public and private agencies which provide leisure services are striving to ensure that their operations remain economically viable in a sluggish economy and competitive market place. As operating costs rise and individual disposable incomes fluctuate, the demand for leisure facilities and programs weakens (The Edmonton Journal, 1991). To ensure economic survival in these conditions, it is now more important than ever to increase our understanding of why people participate in leisure activities, and to what extent they are satisfied with their participation. An examination of these questions may prove an important area of study for those involved in the provision of both public and private leisure services now and in the future.

Statement of the Problem

Historically, researchers have been concerned with knowing "how often", or "in what" activity people will participate. However, more recently the approach has been to understand "why people participate" (Crandall 1980; Kelly 1987; Kroening & Jackson 1983). This change in focus from understanding the "how" and the "what" associated with

leisure participation, to a more clearly defined "why", should provide leisure professionals at all levels the opportunity to recognize more clearly the underlying motives for leisure participation and the satisfactions attained through this involvement. In acquiring a greater understanding of why people engage in leisure activities, professionals may then develop a greater appreciation of the notion of participant retention.

Participant retention refers to the successful rate of return of consumers involved in leisure programs and activities. McKechnie (1974) suggests that there are basic underlying concepts or dimensions regarding recreation behavior that might allow high predictability of future satisfaction based on knowledge of past experiences. Understanding the satisfactions gained through participation in a leisure activity, and the impact these satisfactions may have on future involvement may provide insight into participant retention in leisure pursuits.

Retention probably is dependent upon the participants' satisfaction gained through involvement in a leisure activity. Dumazedier (1974) suggests when the "state of satisfaction ends or deteriorates, the individual tends to discontinue the corresponding activity" (p.75). Furthermore, Mercer (1971) provides support for this statement by indicating that the "recollection phase" of leisure activities is in many ways the most important. When the activity is reviewed and assessed, if found to have given satisfaction, it will most likely be repeated.

The concept of participant retention is an element often associated with marketing in the business sector of society. However, the use of marketing in the public sector has often been viewed as negative, manipulative and predominantly a profit oriented strategy (Howard & Crompton,1980; Kotler, 1975). In many instances this may be considered true. Nevertheless the use of marketing strategies can be used as a valuable tool to inform, assess, evaluate and control actions of delivery for numerous market segments and the various publics involved. Since the close of the 1960's, marketing has become a major interest for many individuals involved in the provision of leisure services, leisure goods

and leisure facilities (Kotler & Levy, 1969; Kotler, 1975) and its use in the public and not-for-profit sectors has become more widely accepted and practised (Crompton 1991).

The notion of developing marketing strategies for retention through an increased understanding of motives for participation and satisfaction achieved from the activity are not new to those involved in the provision of goods and services in the profit sector. However, the concept appears to be in its infancy with those involved in the provision of leisure activities in either the public or not-for-profit sectors. Mahoney (1987) suggests that most marketing efforts in the past have been directed at attracting participants to programs and not to post program experiences. He argues that " marketing ... should be directed as much, if not more, at satisfying and retaining customers as it is with attracting new ones" (p. 6). Developing strategies to retain participants, through an increased understanding of leisure motivations and satisfaction, should become a major focus of those involved in the delivery of programs and services. It is hoped that this study will aid in the conceptual development of participant retention in leisure settings through the examination of leisure motivations and satisfactions of visitors to the Edmonton Space and Science Centre (ESSC).

A number of specific questions served to guide the development of the study. The major questions are as follows:

1) What factors serve as motivators in the decision to participate in particular programs or activities at the Edmonton Space and Science Centre program or activity?
2) What satisfactions result from participation in the program or activity?
3) What differences, if any, are there between degree of motivation and degree of satisfaction on selected factors?
4) Do gender, education or level of income effect leisure motivations, and the degree to which satisfaction is achieved?

5) What factors are likely to prompt participants to make a return visit to the Edmonton Space and Science Centre?
6) What factors are likely to inhibit participants from making a return visit?

The design of the study consisted of two phases. The first involved an examination of the motivations associated with participation in programs offered at the ESSC. These programs included IMAX, Laser Light and Star presentations at the IMAX Theatre and the Margaret Zeidler Star Theatre. The second phase focused on the degree of satisfaction experienced by a second set of visitors after viewing these same programs. It is hoped that an analysis of these two phases will provide insight into the existence of a relationship between leisure motivation and leisure satisfaction.

Significance of the Problem

The study has both practical and theoretical significance. The results of the study should be of interest to those involved in the administration, development and implementation of leisure activities. As well, those involved in the development of research in the areas of leisure motivation, leisure satisfaction and participant retention should find the results informative and possibly instructive. Results from this examination may be used to develop or assist in the development of marketing strategies to aid in the continued success of the ESSC.

The primary focus of this study was to work towards developing an understanding of why individuals might return to participate in a leisure program or activity. The intent in completing this study is to go beyond examining questions of why people are motivated to engage in leisure activities and what satisfactions occur as a result of this leisure participation. In an attempt to understand participant retention in leisure activities, it is

important to examine the demographic characteristics of those engaging in leisure pursuits in order to determine the impact this information may have on future leisure participation.

The practical considerations of the study should assist leisure professionals in the design and development of leisure activities which would promote opportunities for participant satisfaction, in an attempt to maintain or enhance participant retention within the leisure setting. The opportunity to acquire an increased appreciation of the factors associated with participant retention should aid leisure professionals in the development of marketing strategies to encourage participation longevity in leisure activities. To understand more fully the reasons individuals become involved in certain leisure activities can be beneficial, to the long term success of leisure, for those involved in the provision of services. Results from the study may also add to the knowledge base of leisure studies and to the further development of the leisure professional through an increased understanding of motives for participation, satisfactions gained through involvement, and insight into the notion of participant retention.

Conceptual Framework

The degree of commitment to a leisure activity is considered to be directly related to the satisfaction gained from the activity (Bloch & Bruce 1984). The greater the degree of satisfaction, the more likely the participant is to return to further pursuits in this activity. Motivation to engage in a leisure activity likely is based on the satisfaction from previous experience and that satisfaction influences the desire for additional satisfactions in the future (Henderson 1981). Studies completed by Schreyer and White (cited in Ewert, 1985) in the area of risk recreation activities concluded that motives for involvement in such experiences are based on the anticipated benefits of participation. Experiences gained from past involvement in a leisure activity may positively, or negatively, affect an individual's motives for future involvement in a chosen leisure pursuit. Focusing on the degree to

which motivations for leisure involvement are satisfied may prove useful in understanding the notion of participant retention in leisure activities.

Leisure researchers have shown an increased interest in the examination of motives influencing decisions to participate in leisure activities and satisfactions gained through participation in these activities. Several researchers have focussed their studies on the topics of leisure motivation and leisure satisfaction. Patrick (1916) was one of the first to record possible reasons why people engage in leisure activities. More recently, investigations of leisure motivations can be found in studies completed by Beard and Ragheb (1980), Crandall (1979,1980), Ewert (1985), Hawes (1978), Hendee and Burdge (1974), Henderson (1981), Hirschman (1984), Hollender (1977), Iso-Ahola (1979), Kroening and Jackson (1983), Knopp (1972) McKechnie (1974), and Mills (1985).

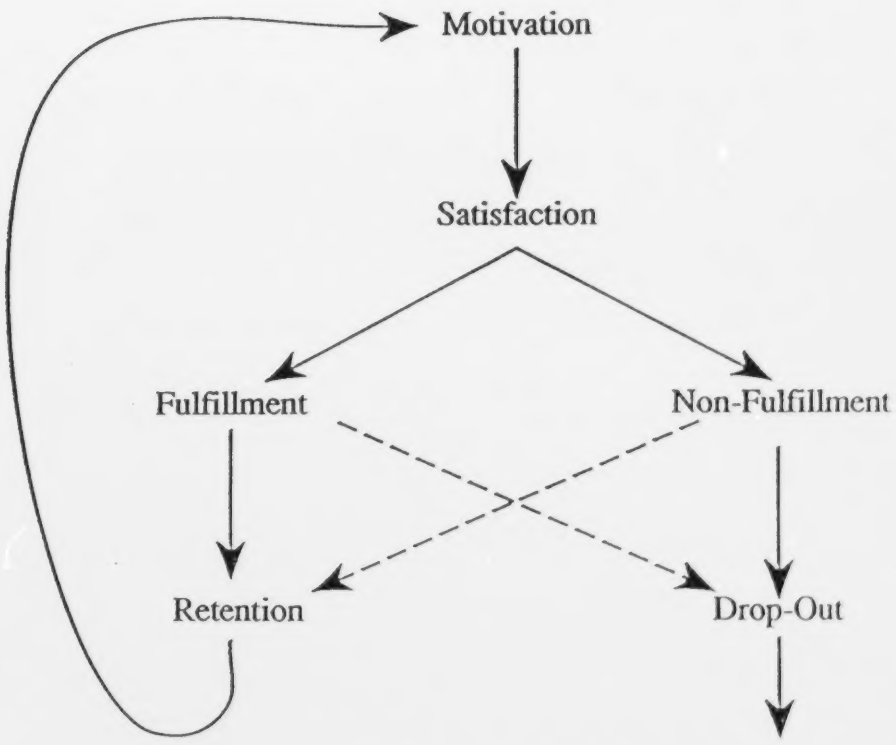
Research in the area of leisure satisfaction is relatively new and has appeared only in more recent literature (Beard & Ragheb, 1980). Nevertheless, research on satisfactions gained or derived through the involvement in leisure pursuits have been investigated by Beard and Ragheb (1980), Bloch and Bruce (1984), Chase and Cheek (1979), Hawes (1978), London, Crandall and Seals (1977), Lounsbury and Hoopes (1985), Pierce (1980), Ragheb (1980), Tinsley, Barrett and Kass (1977), and Tinsley and Kass (1978, 1979).

Although various studies on leisure motivation and leisure satisfaction have been completed, few have examined the relationships between leisure motivations and leisure satisfactions. One possible result of a relationship between the two is that of participant retention, referring to the return of a participant to a leisure activity. The notion of participant retention is similar to the idea offered by Henderson (1981) suggesting "that motivation occurs when an individual has been satisfied with the previous outcomes and has a desire for additional satisfactions in the future" (p.216). McKechnie (1974) reveals that predicting future satisfactions gained from a leisure activity is based on past experiences of activities. Henderson (1981) explains that people "are motivated to do

something (work, volunteer, or participate) based on what they hope to gain from the experience" (p.209).

An individual may be motivated to participate in a leisure activity with an expectation of fulfilling a predetermined outcome, or in other words, to satisfy the reason or reasons for seeking to participate. If satisfaction is the fulfillment of motivation and results from successful participation in the leisure activity, then the likelihood of future participation is enhanced. Therefore, a conceptual model (see Figure 1) might outline an individual's motives for leisure participation, the satisfaction of these motives, and predict the potential return to engage in the leisure activity in the future. If this were to occur, then participant retention would have been achieved.

Figure 1
Participant Retention Model



The occurrence of participant retention is dependent upon several important factors. First, the motivations for leisure involvement must be satisfied at a level equal to, or greater than, what had been anticipated prior to involvement. Second, there exists the possibility that although the motivating factors for participation have been satisfied, the individual may choose not to re-enter the activity. Thirdly, the possibility exists that the motivating factors for involvement have not been satisfied, but the participant chooses to continue future involvement in the activity for reasons other than those to satisfy their original motivations. A fourth consideration is that the leisure activity is a one time only or short duration activity such as a introductory lesson or class which does not permit the individual to return to participate in the leisure activity. Barriers such as cost or limited opportunity also impact an individuals potential for re-entering a program. Scuba diving, as an example, for those not living within close proximity to adequate diving facilities will be limited by cost and geographic restraints for participation in this activity. Although this does not necessarily mean that they will not dive, they may simply not dive often.

To develop an understanding of why people engage in leisure activities and what satisfactions are gained from this participation is important if quality leisure services are to be provided. Crandall (1980) suggests that the "study of motivations for leisure is important for theoretical development of leisure and for practical service delivery" (p. 46). In today's world, leisure researchers and professionals must strive to gain a greater understanding of why individuals participate in leisure activities. The information acquired through leisure research must be communicated to, and practiced by, today's leisure professional if the provision of quality leisure opportunities in the public and not-for-profit sector is to be enhanced.

McKechnie (1974) explains that "structural analysis might provide insight into the basic concepts of dimensions that underlie the important individual differences in recreation behaviors" (p.30). An increase in the wealth of information gained through developing a broader understanding of recreation behaviour and patterns will lend support to the

development of leisure opportunities for all. The provision of leisure activities based on an understanding of what people want to achieve from their involvement should lead to highly satisfying leisure experiences. Providing services that are designed for the individual, and not for the delivering agency, should be the practice of every recreation professional. John Crompton (1991) during a recent conference stressed this very aspect, arguing that leisure programs should be "market driven", meeting the needs of the participant, as opposed to "agency driven", creating unsolicited needs. Programs and services should be developed that cater to the needs of the public, not to change the needs of the public.

Assumptions

Assumptions of the study include the notion that those responding to the survey questionnaire were aware of their motives for involvement in the activity they chose. Similarly, an assumption exists in the participant's ability to accurately evaluate the degree or level of satisfaction experienced through participation in the leisure activity.

Delimitations and Limitations

Delimitations

1. The study was delimited to the Edmonton Space and Science Centre (ESSC), during the spring of 1991.
2. The study was delimited to the sample and time periods which are specified in the sampling procedures.

Limitations

1. In the completion of the satisfaction questionnaire with a sample different from those completing the motivation questionnaire, the possibility exists

that the samples may be too different, therefore impacting the results of the study.

2. The study was limited to visitors to the ESSC. Limitations to the study include external barriers to participation in leisure activities, eg: satisfaction with a particular activity but lack of interest for continuing in the program; design of a program to meet the needs of a one time only participant.

Definitions of Terms

The following terms have been identified to ensure that consistency is maintained throughout the study:

Leisure Activity: any activity which people choose to pursue during their free time.

Leisure Motivation: a need, reason, or satisfaction that stimulates involvement in a leisure activity (Crandall 1980).

Leisure Satisfaction: a consequence or outcome of leisure participation (Ragheb 1980).

Participant Retention: the number of participants who return to a program upon completion of an earlier program.

Organization of the Thesis

Chapter I introduces the problem under study and states the purposes for the study together with the specific research questions and definitions of terms used. Chapter II reviews the related literature on motivations for involvement in leisure activities and on the

satisfactions gained through this involvement. Chapter III discusses the methodology used in the study noting the instrumentation, procedure and data analysis. Chapter IV provides an in-depth analysis and review of the data obtained. Chapter V summarizes the findings, discusses both theoretical and practical recommendations, and provides concluding remarks.

CHAPTER II

REVIEW OF RELATED LITERATURE

The four major areas of research and theorizing related to the problem of the study are reviewed in this chapter. The first two sections focus on the reasons why people participate in leisure activities and the satisfactions derived from participation. In the third section, the focus is on the relationship between motivation and satisfaction. The limited research on participant retention is reviewed in the fourth section.

Leisure Motivation

An understanding of motivating factors for leisure participation has been an important and growing area of research during the past century. Inclusive lists of research on leisure motivations have been developed and examined in an attempt to explain why individuals become involved in various leisure activities and patterns. To endeavour to gain greater insight on the topic of leisure motivation this section explores some of the research that has been completed in recent years.

A considerable amount of the research completed in the area of leisure motivation has been to explore and identify reasons for involvement in leisure activities. Beard and Ragheb (1983) through rigorous testing developed a comprehensive list of 48 leisure motivation items which could be categorized into four sub-scales: Intellectual, Social, Competence-Mastery, and Stimulus Avoidance. The researchers felt that most motives for leisure participation could be categorized into one of these four sub-scales, thereby creating a means for the identification of motivational factors associated with leisure participation.

The development of lists and categories of items to describe leisure motivations has been quite exhaustive. Crandall (1980) and others in a collective meeting of fellow leisure researchers developed 17 motivational categories and items which were determined to be

important to leisure and at the same time be discrete and comprehensive with regards to leisure participation. The items were identified as being representative of the many reasons developed by leisure researchers to explain why people become involved in leisure activities.

Lists of motives have been developed which describe reasons for involvement in outdoor recreation activities. Ewert (1985) examined 40 items detailing why people mountain climb. From this research he identified six factors for climbing. Hollender (1977) established seven motives for determining why people pursued mountain climbing as a leisure activity. Knopp (1972) developed ten motivational statements for participation in outdoor recreation. Mills (1985) identified 28 needs for a successful skiing day and compared these findings with those needs identified by Maslow's hierarchical research.

Hirschman (1984) identified nine behavioral motives for participation in leisure activities and examined the findings with relation to various sex roles. The results indicated that five of the nine motives for participation were significantly related to psychological androgyny. The study showed that sex role was found to explain more variance in the motives for leisure participation than by gender.

Henderson (1981) developed 27 motivational statements for why people became involved in various volunteer roles and board positions, and if they perceived the experience to be a leisure activity. The findings reported that the volunteer experience and many of the motives associated with becoming involved, were similar to those qualities realized through leisure activities.

Expectations of what the participant will gain from the leisure activity have been viewed as motives for future involvement. Clawson and Knetsch (1969) suggest that the anticipation phase of the recreation experience is of great importance when an individual is motivated to participate in a leisure activity. Anticipation as a motive is based on a prior experience or knowledge. Mercer (1971) agreed that recalling the past experience created a starting point for the anticipated involvement in future activities.

The notion of anticipation as a motive for participation is also supported by Henderson (1981) who believed that "motivation occurs when an individual has been satisfied with the previous outcomes" and these result in a desire for additional satisfactions in the future (p.216). Ewert (1985) suggests that motives for participation in an activity may differ between those who have had previous experience in the activity and those who have had none.

Tinsley, Barrett and Kass (1977) suggested that females and males participated in leisure activities for different motives. Hirschman (1984) suggests that gender roles explain variance in motives for leisure activity when compared to that of biological gender. Results also indicated that androgynous individuals seek a greater range of activities because they may be more active than others. Gender role difference in leisure participation is another area of interest for those involved in researching the area of leisure motivation and for those involved in the delivery of leisure programs.

In the list development of motivational items or factors there are several that continually re-appear in the studies that have been cited. The repeated presence of these motives seem to indicate the validity of their use in studies involving leisure motivation. These motives by definition can be grouped into subscales of Social, Mastery or Physical Challenge, Intellectual, and Stimulus Avoidance or Relaxation, creating clearly identifiable categories of reasons for leisure involvement.

Social elements involved in leisure participation have been identified by Beard and Ragheb (1983), Crandall (1980), Ewert (1985), Henderson (1981), Knopp (1972), and Mills (1985). The Social subscale identified by Beard and Ragheb (1983) "assesses the extent to which individuals engage in leisure activities for social reasons. This component includes two basic needs... the need for friendship and interpersonal relationships... esteem for others" (p.225). Crandall (1979) also identified the social element as a motivation for participation in leisure activities. These included: social contact, family contact, heterosexual contact, meeting new people, social power and recognition status. It

was also suggested that "social interaction is an important motivation for, or satisfaction derived from leisure"(p.168). The elements involved within the social component are seen in many leisure activities in which people engage. Often people join clubs or groups that have common interests, but also as a means for developing relationships and to share companionship with others involved in this leisure activity.

At times people become involved in certain leisure activities not so much for the activity itself but the recognition that is attached with membership in a certain group or activity. Knopp (1972), who developed ten motivational statements for outdoor recreation participation, noted that social motivations and prestige were often cited as two important determinants for leisure involvement.

Using a previously established framework for motivation, developed by Maslow in 1959, Mills (1985) in his study of downhill skiing indicated that affiliation, or social interaction, with family or friends was an important determinant for participation in leisure activities. The notion of social affiliation has been shown to be a common motive for participation in various leisure pursuits. The desire to interact socially in activities with family members or friends, to share in common interests with others, or simply to meet new people is an important motive for leisure participation.

A second category of leisure motivational items is that of Competence-Mastery. This term defined by Beard and Ragheb (1983) "assesses the extent to which individuals engage in leisure activities in order to achieve, master, challenge, and compete. The activities are usually physical in nature" (p.225). Other studies have included the notion of challenge or mastery in the development of lists of leisure motives. Crandall (1980) included: achievement, challenge, and competition; physical exercise; stimulus seeking; and self-actualization (which included self-improvement) in his compilation of reasons for leisure involvement. Participating in an activity in order to challenge oneself and to strive for excellence can be seen in many leisure activities. Many might commence involvement in an activity for reasons such as fitness and physical exercise and, with time, continue

participation with the stimulus being the desire to master the activity. Ewert (1985), Mills (1985), and Hirschman (1984) also included challenge/risk, self-actualization, performance-perfection, and competitiveness in the detailed lists they have developed as measures for identifying motivations for participation. For the most part these motivations give form to the category of Competence-Mastery. Participation in activities can occur for the challenge of the mind as well as that of the body.

Motives such as Intellectual have been observed by Beard and Ragheb (1983) who described this item as one that "assesses the extent to which individuals are motivated to engage in leisure activities which involve substantial mental activities such as learning, exploring, discovering, creating, or imaging" (p.225). Crandall (1980), addressed this category of motives as Intellectual-Aestheticism, whereby individuals might become involved in leisure activities in order to use their mind, or reflect upon personal values (p.49). Ewert's (1985) research identified creativity as the factor that most closely relates to the intellectual items identified by the others. This motive was associated with using one's mind and having a chance to think (p.243). The intellectual motivation for participation in leisure exists in many activities in which people engage. Whether it is the development of mental strategies in a game of chess or the evolution of a painting from the mind of the artist to the finished product, the thought processes that occur in the development are often the stimuli responsible for motivating the individual to participate in such activities.

The final major category that has been extracted from research on leisure motivation is that of Stimulus-Avoidance. As characterized by Beard and Ragheb (1983), it "assesses the desire to escape and get away from overstimulating life situations...to avoid social contacts, to seek solitude and calm conditions; for others it is to seek rest and to unwind themselves" (p.225). The notion of escape or isolation from society has been identified as one reason for participation in some leisure activities. Crandall (1980) identified this desire for stimulus avoidance to include enjoying nature and escaping civilization: relaxation, escape

from routine and responsibility. Ewert (1985) also identified stimulus avoidance as a primary reason for individuals to become involved in mountain climbing. Hollender (1977) also supported these ideas as motivations for camping as the desire to escape the familiar and urban stress. Knopp (1972) identified rest, solitude, and freedom as determinants for outdoor recreation. Hirschman (1985) labelled this notion as escaping reality. Leisure activities such as running, swimming or reading may be used as a means of relieving stress and at the same time could be categorized as stimulus-avoidance motivations for involvement in these leisure activities.

In addition to the major categories of leisure motivations listed above, other items have been identified through the various studies. Ewert (1985) noted that the recognition element for involvement in leisure activities was important for those who wished to be associated with participation in specific leisure activities, as well as demonstrating to others that they could succeed in their undertakings. This was considered a major reason for participation in climbing. It was also suggested in this study that motives for participation in an activity may differ between those who are experienced and those who are inexperienced. The more experienced climbers differed in their motives for participation than those who had less experience in this activity. The findings indicated that motives for involvement such as challenge, risk, excitement and decision making were strongly reported by the more experienced climber, while recognition and socializing were identified as reasons for participation by the less seasoned climber.

Henderson (1981) developed 27 motivational statements to examine why people become involved in volunteering. Results from the study indicated that the motivations associated with volunteering were often considered to "enhance or create the leisure experience" (p. 216). It could be concluded from this work that motivating factors are often stimulated by the expected outcome. It was argued that "motivation occurs when an individual has been satisfied with the previous outcomes" and these result in a desire for additional satisfactions in the future (p. 216).

The investigation of motivations for leisure participation has become extensively involved in all areas of leisure pursuits, from volunteerism to mountain climbing to chess. Identifying leisure motivations, and factors which may influence how these motivations are determined, should prove beneficial for both researchers and providers of leisure programs and services. Insight into participation in leisure activities should also provide managers of these services with knowledge of the types of programs that can be provided to participants. Crandall (1979) suggests that people become involved in leisure activities for a variety of reasons. This notion is important for both managers and researchers because it is as important to understand why leisure involvement occurs as it is to know what involvement takes place. If, for example, the motives for leisure involvement differ from what the participant expects and what the provider is offering, disinterest in participation can occur with the effect being the decline of participation in those activities. Crandall (1980) proposes that the "study of motivations for leisure is important for theoretical development of leisure and for practical service delivery" (p.46). As important as it is to understand motives, it is also vital that the information generated through research be communicated to those involved in the provision of leisure services and programs to ensure that the needs of the participants are being considered in the design and development of program services.

Leisure Satisfaction

One might assume that motives are the means to an end, or satisfaction. However it might also be suggested that motives and satisfaction for leisure participation may be ends within themselves. Dumazedier (1974) indicates that leisure is "characterized by a search for a state of satisfaction, taken as an end itself" (p.75). Ragheb (1980) defines leisure satisfaction to be "the positive perceptions or feelings which an individual forms, elicits, or gains as a result of engaging in leisure activities and choices" (p.22). Franchen and van

Raaij (1981) state that "satisfaction is a relative index commonly defined as the discrepancy between expectations and the actual situations" (p.338).

It is suggested by Mahoney (1987) that "the quality of the [leisure] experience is in part dependent on their ... skill level, selection of activities, attitude and behaviour" (p.4-5). Ragheb (1980) echoes this thought when he indicates that individuals involved in leisure activities should contribute to the satisfaction of needs and to their overall pursuit of happiness.

In many of the earlier studies completed, the primary focus was simply to find out what satisfactions had been experienced following involvement in leisure activities. As Ragheb (1980) suggests leisure satisfaction can be regarded as an "antecedent or consequence of leisure participation" (p.139). In a study completed by Beard and Ragheb (1980) 51 items related to participant satisfaction were identified. These items were analyzed and grouped into 6 subscales or categories of leisure satisfactions, defined as: psychological, educational, social, relaxation, physiological and, aesthetic (p.26).

Hawes, Talarzyk, and Blackwell (1975) examined 47 leisure pursuits of Americans and then developed a satisfaction statement from each of the individuals regarding their favorite activity. Responses were then divided into male/female categories. The study found that females were more often involved in indoor activities, while males tended to have an orientation to participate in an out-of-doors environment . In the study it was also noted that females were more likely to seek social contact, novelty, memories and stronger family relations. Males were inclined to seek challenge, mastery, control, recognition and independence (p.834).

Lounsbury and Hoopes (1985) investigated factors associated with vacation satisfaction which included: relaxation and leisure, escape opportunities, marriage/family, food and lodging and level of educational attainment. The study also examined the potential relationship between vacation satisfaction and six work related variables; however no significant correlations appeared in the findings.

Pierce (1980) investigated 68 satisfactions identified in popular writings and through professional contact. These items were then administered to a group of respondents in order to gain insight on the degree of satisfaction obtained through involvement in their favorite activity. Respondents answers were analyzed by gender and the findings revealed four dimensions that reported strongly: intimacy, relaxation, achievement, and power. The research indicated that males and females differ only in the degree of satisfaction they gain from power.

Tinsley, Barrett and Kass investigated 45 needs which might be satisfied through involvement in five commonly selected leisure activities. The results strongly suggested that many of the needs identified are "leisure activity specific" (p.118), which can be satisfied more fully in one leisure activity over another. Results from the study also conclude that males and females engage in leisure pursuits for different reasons. Findings supported the notion that leisure activities can contribute to the overall life satisfaction of an individual.

Tinsley and Kass (1978) re-investigated 10 commonly selected leisure activities using the same 45 need-satisfying characteristics identified in an earlier study. Results indicated that 33 of the 45 need-satisfiers studied were related to the activity of participation, therefore indicating that leisure activities differ in the needs which they have the potential to satisfy (p.199). For example, scuba diving and mountain climbing may fulfill needs that could not be achieved through participation in an activity such as card playing or chess. The researchers at this time noted that inclusions of gender differences as an independent variable in future research was not necessary. This absence of gender was not to suggest that males and females do not have differing psychological needs, but that both can participate in a given activity with the desire to satisfy specific needs (p.199).

Tinsley and Kass (1979) developed their findings even further with an examination of ten popular leisure activities through the use of two independent factor analyses. The list of need-satisfying characteristics was reduced to 27 from the original 45 identified in 1977. It

was hoped that the study would assist in determining what needs are satisfied by leisure activities. Factors identified included: self-actualization, companionship, power, compensation, security, social security, intellectual-aestheticism, and autonomy. The leisure activities identified all showed potential for satisfying the eight factors identified.

Trafton and Tinsley (1980) completed an investigation of the construct validity of measures of job, leisure, dyadic and general life satisfaction. Analysis of the study indicated that leisure satisfaction was of less importance than that of work satisfaction. It is interesting to note that when this study was re-analyzed by Tate (1984) used a casual modeling methodology as an alternative approach to measuring construct validity. This approach revealed significant contrast to the findings reported earlier by Trafton and Tinsley. Results showed that leisure satisfaction was the most significant factor involved in overall life satisfaction.

Motivation and Satisfaction

Why people engage in leisure activities and what satisfactions they expect to gain from this involvement may be more closely related than has been expected or reported in the past. Henderson (1981) believes that "motivations, needs, and satisfaction are aspects of volunteering which enhance or create the leisure experience" (p.216) and are vital to the decision making process for future leisure involvement. The literature appears to show that leisure experiences are cyclical in nature. The notion "that motivation occurs when an individual has been satisfied with the previous outcomes and had a desire for additional satisfaction in the future" (Henderson, 1991. p. 216) is essential information for those involved in the provision of services in order that they understand the importance of the "whole" leisure experience. Lounsbury and Hoopes (1985) suggest that satisfactions gained through vacationing were only fulfilled when travellers attain their goals and expectations from involvement in their leisure experience.

Crandall (1980) suggests that the "needs, reasons, and motivations" for involvement are the causes for leisure involvement and the "satisfactions and psychological outcomes" are the results of leisure (p.50). Individuals that realize their motives through leisure participation may be satisfied with their involvement in the leisure pursuit. If this fails to occur, then as Dumazedier (1971) states, "leisure fails to give the expected pleasure, when it is not enjoyed, ... Then leisure is no longer itself" (p.76). If an individual engages in a leisure activity for specific reasons, and satisfaction of those reasons does not occur, then it is realistic to assume that the individual may lose interest in the activity.

Participant Retention

As individuals plan for an activity, their expectations of what lies ahead often serve as the motivating factors for what they expect to achieve through participation in this activity. Clawson and Knetsch (1969) suggest that this anticipation phase of the leisure experience is of great importance when one is motivated to participate in a leisure activity. Anticipation as a motive, is based on prior experience. Mercer (1971) supports the idea that recalling a past experience creates a starting point for the anticipation of future experiences. Recollection may be viewed as a form of evaluation, and the more positive the previous experience, the greater the possibility that future involvement will take place in the activity. Expectations of gains from a particular activity will only enhance the anticipation phase of the activity, thus leading to future involvement (Mercer 1971). Therefore, if leisure providers can determine the motives for involvement, and plan accordingly, the likelihood of retaining participants will increase.

Dumazedier (1974) suggests that when "a state of satisfaction ends or deteriorates, the individual tends to discontinue the corresponding activity" (p.75). Satisfaction gained through involvement in a leisure activity may lead to future participation in the activity, thus

participant retention is achieved. This notion of leisure satisfaction influencing future involvement has also been supported through research completed by Crandall (1980).

People are motivated to engage in leisure activities based on what they perceive to gain from the experience (Henderson 1980). Motivating factors are often stimulated by the expected outcome as Ragheb (1980) suggests then, satisfaction can be investigated as the consequence gained through leisure participation. He also indicates that commitment to a leisure activity is influenced by the satisfaction obtained from that involvement.

Summary

At the present time there is little documented research on the notion of participant retention in leisure activities. However, the current literature clearly suggests that a relationship between leisure motivations and satisfactions may exist. Nevertheless, the importance of this association regarding participant retention in leisure activities remains open to speculation. Several researchers have supported the concept that future leisure involvement strongly depends upon a healthy relationship between motivations for leisure and satisfactions attained. Mercer (1971) describes the recollection of past experiences as being the most important element in the decision to participate in the future. Henderson (1981) suggests that motivation for involvement in leisure activities is based on prior experiences which create a desire to achieve additional satisfactions. Conversely, when motivations for leisure participation are not sufficiently satisfied, then the likelihood of future participation declines. As suggested by Dumazedier (1974), when satisfaction deteriorates, the desire to stay involved in a leisure pursuit is lost. Logically then, when motivations for leisure are satisfied, one can reasonably anticipate achieving participant retention. Understanding this information should aid leisure professionals in the development and implementation of initiatives to encourage participant retention in leisure settings.

CHAPTER III

METHODOLOGY

This chapter contains an overview of the research design, the instrumentation, the procedures used in data collection, and the statistical treatment used in the analysis of the data.

Research Design

In an attempt to identify factors influencing participant retention in leisure activities, data obtained from two sets of visitors to the Edmonton Space and Science Centre (ESSC) were analysed and compared. The design of the involved identifying leisure motivations of one group of visitors to the ESSC prior to viewing a program, and then using a second set of visitors to determine the degree to which motives for participation were satisfied as a result of involvement in the leisure activity.

The study was conducted in two phases over a two week period. In the first phase, visitors to presentations of the Blue Planet, Mozart and Planet in Peril at the IMAX Theatre and the Margaret Zeidler Star Theatre were provided with a questionnaire examining their motivations for attending a particular show. During the second phase visitors to the same shows at the ESSC were provided with a questionnaire which examined the level of satisfaction experienced after attending the presentation. The motivation questionnaire was adapted from a study completed by Beard and Ragheb (1983), and replicated by Ragheb (1988), which examined motivations for leisure. Questions for the second questionnaire were based on the first. However, instead of seeking information on motivations for leisure, the focus was to determine the degree to which the previously identified motives were satisfied following the activity.

Table 1
Type of Show and
Distribution of Respondents

	IMAX "Blue Planet"	Laser Light "Mozart"	Star Theatre "A Planet in Peril"
Number of Respondents for Motivation Questionnaire	Wednesday, April 24 3:05 p.m. Est. Attendance - 35 # of Respondents - 27	Thursday, April 25 7:20 p.m. Est. Attendance - 2 # of Respondents - 0	Thursday, April 25 8:05 p.m. Est. Attendance - 0 # of Respondents - 0
	Saturday, April 27 7:05 p.m. Est. Attendance - 150 # of Respondents - 52	Saturday, April 27 5:00 p.m. Est. Attendance - 14 # of Respondents -11	Sunday, April 28 2:00 p.m. Est. Attendance - 14 # of Respondents -11
Number of Respondents for Satisfaction Questionnaire	Wednesday, May 1 3:05 p.m. Est. Attendance - 35 # of Respondents - 29	Thursday, May 2 7:20 p.m. Est. Attendance - 0 # of Respondents - 0	Thursday, May 2 8:05 p.m. Est. Attendance -3 # of Respondents - 0
	Saturday, May 4 7:05 p.m. Est. Attendance - 175 # of Respondents - 56	Saturday, May 4 5:00 p.m. Est. Attendance -16 # of Respondents - 13	Sunday, May 5 2:00 p.m. Est. Attendance - 10 # of Respondents - 8

Show Descriptions

The following descriptions of the shows were part of promotional materials distributed by the Edmonton Space and Science Centre.

Blue Planet: "If a picture is worth a thousand words, any one scene from BLUE PLANET is worth a zillion. A stunning look at our planet as a living being - beautiful, volatile and extremely vulnerable." - The Washington Post (Excerpt from Edmonton Space and Science Centre Brochure). The film is produced and shown using IMAX technology on a screen 12 metres high and 18 metres wide.

A Planet in Peril?: "Our environment is a living, balanced system which is sensitive to change, but so far forgiving to man's transgressions. This programme, a co-operative effort between the Edmonton Space and Science Centre and the H.R. MacMillan Planetarium, brings to light how our environment is in a precarious balance". (Excerpt from Edmonton Space and Science Centre Brochure). The show is produced and presented using over 200 computer controlled slide projectors and special effects projectors and a spectacular 17,000 watt stereo system in a planetarium theatre.

Mozart: "The complex patterns generated by our 2000 milliwatt laser are interwoven with the intricate movements from some of Mozart's best known music. Sit back and enjoy this unique blend of art and music as we present a light and sound spectacular". (Excerpt from Edmonton Space and Science Centre Brochure). The show is produced using high quality, 17,000 watt audio technology and a 2 watt krypton laser system in a planetarium theatre.

Ethical Considerations

Permission to conduct the study was obtained in writing from the Executive Director of the Edmonton Space and Science Centre.

Permission to complete the study using human subjects was obtained from the Faculty of Physical Education and Recreation, University of Alberta prior to the commencement of the study.

All respondents in the study were made aware of the purpose of the study. All replies to the study were treated as confidential, and anonymity of the respondents was maintained. The responses are to be destroyed six weeks after the thesis has been accepted.

Data Source

The sample groups for the study consisted of individuals participating in programs offered at the Edmonton Space and Science Centre during the spring of 1991. These scheduled programs included IMAX performances of the "Blue Planet", Laser light renditions of "Mozart" and Star theatre productions of "A Planet in Peril". Respondents were selected prior to the beginning of each show identified as part of the study. After purchasing show tickets, most visitors to the ESSC would line up outside the theatre entrance prior to being allowed to enter. The average waiting time outside the theatre was approximately 10 - 20 minutes. During this time period, individuals appearing to be 18 years of age and older, were approached and asked if they would agree to take part in the study. Of those approached less than 5% indicated they did not wish to be involved and were thanked for their time. Because the motivation questionnaire had to be completed prior

to the start of each show, those arriving at the theatres late were not asked to take part in the study.

The satisfaction questionnaire was handed out to individuals in much the same way as was done with the motivation questionnaire. While visitors waited to enter the theatre, they were approached and asked if they would take part in the study. Those who agreed were provided with the satisfaction questionnaire and were asked to complete it only after viewing the show they had chosen to see. As was the case with the motivation questionnaire, less than 5% declined to take part in the study and were thanked for their time. The total sample consisted of 207 visitors during the period between the 24th of April, 1991 and the 5th of May, 1991. One hundred and one respondents completed the motivation questionnaire and 106 respondents completed the satisfaction questionnaire.

Procedure

The procedure for the study involved providing the respondents with questionnaires and pencils as they waited to enter the show of their choice. Approximately 10 minutes was required to complete the questionnaire. Respondents who received the motivation questionnaire were asked to complete it prior to entering the show while those who received the satisfaction questionnaire were asked to complete it after viewing the show. Participants in the survey were advised that they could fill out a detachable coupon, making them eligible to win passes for future shows and visits to the ESSC, and to place it in a draw box when returning the completed questionnaire to the reception area. At the conclusion of the study two names were drawn from the draw box, and the passes were forwarded to each winner by registered mail.

Respondents in the first group were asked to indicate on a 5 point Likert Scale "how important" the 38 items were to them for visiting the particular show they had chosen to view at the ESSC (see Appendix 1). For example, "I visit the IMAX Theatre as: I am able

to expand my interests". The original work by Beard and Ragheb (1983) included some questions related to physical activity. These particular questions were omitted due to the non-active nature of the programs offered by the ESSC as part of this study.

The second group of respondents was asked to "indicate how satisfied" they were with each statement regarding their visit to the show they had chosen (see Appendix 2). For example, "I was satisfied with my visit to the IMAX Theatre as: I expanded my interests. The intent of having the sample respond to the satisfaction questions, was to ascertain whether or not a relationship could be established between motivations for participation in a leisure activity and the satisfactions gained from participation in that activity.

Data Analysis

The quantitative data obtained were entered into a computer file and analyzed using an SPSS program through the Department of Population Research Studies at the University of Alberta. Data were first analyzed using a Chi-square test to determine whether there was a significant difference between the observed number of respondents in each of the motivation and satisfaction questionnaires. The use of Chi-square requires that for each category being analysed a frequency of at least 5 responses or cases appear in each of the cells. An initial run of the data analysis indicated that an adequate distribution of responses required to apply the Chi-square test was generally not present; therefore, the use of the test was limited to specific questions only. A *t*-test was performed to analyze whether differences between the motivation sample means and the satisfaction sample means reflected population differences. A significance based on the calculation of t value is appropriate for this purpose. The level of statistical significance was set prior to the analysis at the .05 level (Borg & Gall, 1983, pp.375-377).

CHAPTER IV

RESULTS AND DISCUSSION OF THE RESULTS

This chapter provides the results of the data analysis. Specifically, the contents address the demographic profile of respondents, selection of shows by gender, reasons for visiting the ESSC, reasons for not visiting the ESSC more often, examination of the means for motivation and satisfaction responses, analysis of motivation and satisfaction means for males, analysis of motivation and satisfaction means for females, reasons for visiting the ESSC in the near future and reasons for not visiting the ESSC in the near future, previous visits to the ESSC and intention to return to the ESSC.

Demographic Characteristics of Respondents

Since two different samples provided responses to the questionnaires, a valid test of the relationship among the variables can be completed only if the samples display similar characteristics. Data collected from both samples (Table 2) was analyzed using a Chi-Square to verify whether or not the samples were different at the chosen level of significance, $p<.1$ on selected characteristics. The Chi-square was performed using data on gender, education level, household income and area of residence for the samples completing the motivation questionnaire and for the sample completing the satisfaction questionnaire.The two groups did not differ significantly from each other on the selected characteristics at the .10 level. Consequently a meaningful examination of the relationship between the two variables (motivation and satisfaction) was possible.

Table 2
Demographics of Motivation and Satisfaction Samples

Nearest Intersection to Home

Nearest Intersection	S.W.	S.E.	N.E.	N.W.	Bedroom Community	Other Part of Alberta	Out of Alberta	Unspecified	Total
Motivation	10	2	15	23	11	8	5	13	87
Satisfaction	12	11	6	22	2	17	5	18	93
Total	22	13	21	45	13	25	10	31	180

Gender of Respondent

Gender	Male	Female	Total
Motivation	54	47	101
Satisfaction	44	60	104
Total	98	107	205

Highest Level of Education Completed

Level	Elementary	Jr. High	Sr. High	Technical	University	Total
Motivation	1	5	24	18	46	94
Satisfaction	0	6	35	22	40	103
Total	1	11	59	40	86	197

Total Annual Income of Household

Income	-15K	15K-25K	25K-35K	35K-45K	45K-60K	60K+	Total
Motivation	8	6	9	16	13	26	78
Satisfaction	11	12	14	11	17	20	85
Total	19	18	23	27	30	48	163

Family Outing and Show Selection

Over half of the respondents, 58.4%, indicated that their visit to the ESSC was considered a "family outing." Data collected on those visiting as a family was cross tabulated with the type of show they had chosen to view. The Chi-Square value was not statistically significant. The results are plausible since the shows playing during the time of this study were suitable for family outings. The results from this information and the nature of the programming at the ESSC reflect that the facility's program offerings have been designed with families in mind.

Gender and Show Selection

Approximately 52.2% of the respondents were female, while the remaining 47.8% were male. The gender of the respondents was cross tabulated with the type of show (IMAX, Laser Light, Star) in order to determine if certain shows appealed to one gender more than the other (Table 3). Using a Chi-Square, the observed level of significance was $p>.05$ which indicates that the shows studied did not appeal to one gender more than the other. From a marketing perspective, the information on gender and show selection clearly suggests that an attempt to attract visitors to shows at the ESSC should have little to do with the promotion of shows to one gender more than the other, and therefore should be generic in approach.

Table 3
Gender of Respondents and Show Selection
at the Edmonton Space and Science Centre

	IMAX	Star Theatre	Laser Light
Male	75	10	13
Female	87	9	11
		df=2, p>.05	N=205

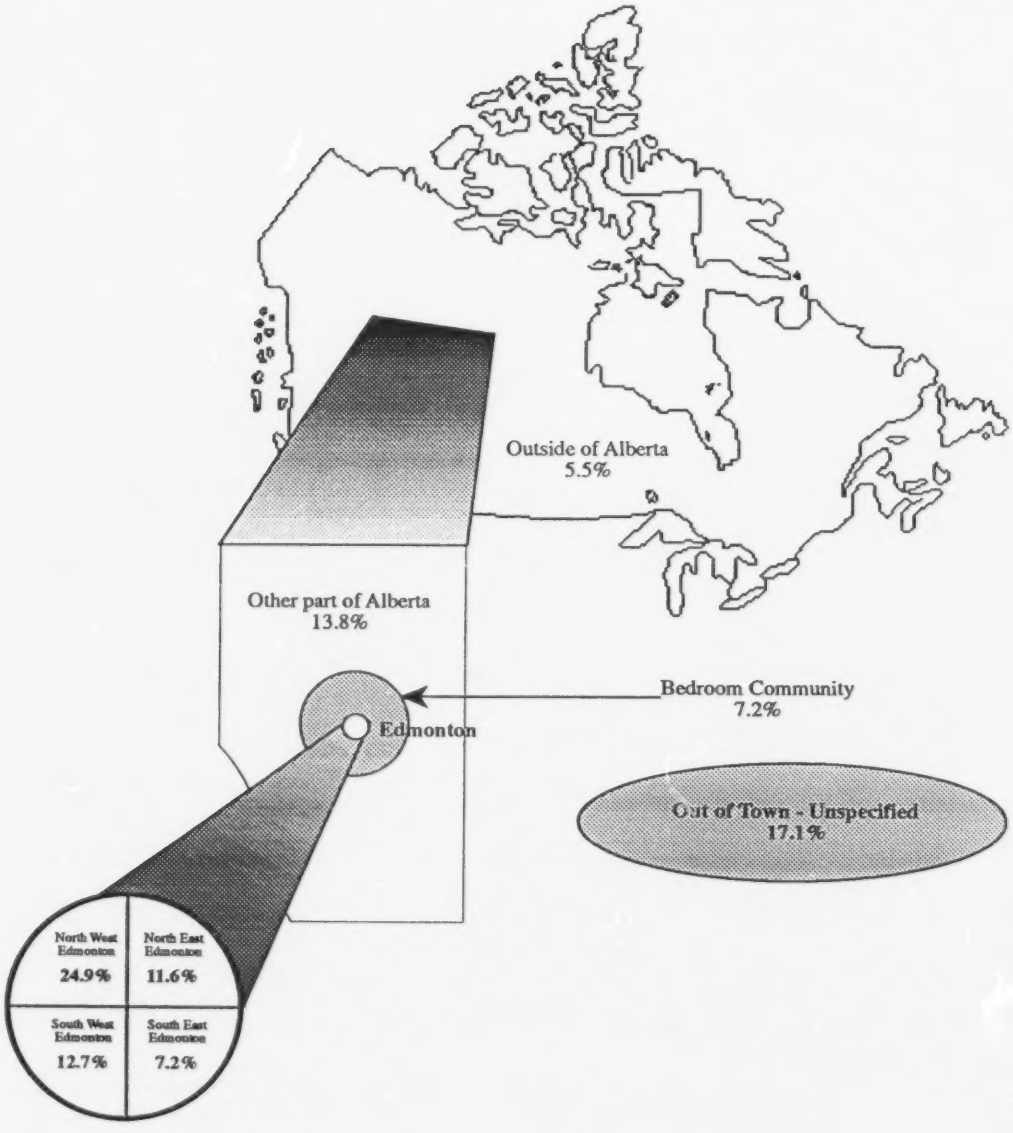
Location of Domicile

Respondents were asked to identify the closest intersection to their domicile. Those living within the Edmonton city limits were classified by quadrant using the Edmonton Parks and Recreation Department boundaries of South West (S.W.), South East (S.E.), North West (N.W.) and North East (N.E.). Respondents identifying themselves as residents of St. Albert, Sherwood Park, Spruce Grove, Leduc, and Beaumont were grouped under the heading of Bedroom Community. Respondents from Alberta, but not living within close proximity of Edmonton were classified as "Another Part of Alberta." Out of Province visitors were identified by "Outside of Alberta" and those not indicating directly as to where outside of Edmonton they lived were identified as "Out of Town - Unspecified".

A review of the results (see Figure 2) indicates that the largest group of respondents was from the North West quadrant of the City of Edmonton which is the quadrant of the city where the ESSC is located. Those respondents from "other part of Alberta"; "outside of Alberta" and "out of town - unspecified" in total accounted for 36.4% of the participants in this study. The South East quadrant of the city had the lowest representation for participants from within the city itself. Only those identified as living outside of Alberta made fewer visits to the ESSC during the period of data gathering.

Ultimately the ideal situation for most organizations is to market a program or service to the widest population possible. Nevertheless, as this is generally not economically feasible and often not logistically possible decisions must be made to select the population, or target market, which will provide the greatest return for the resources expended. Location of domicile of visitors to the ESSC provides information to management in determining options for the development of marketing initiatives for the facility. Choices include targeting specific areas such as the N.W. quadrant of Edmonton, where residents may be more aware of the programs and services offered, simply due to their proximity to the facility. On the other hand, targeting the S.E. quadrant of the city where residents were

Figure 2
Nearest Intersection to Your Home



the least represented group of visitors may prove beneficial in attracting new patrons in what might be considered an untapped market. As out-of town visitors made up a significant portion of those visiting, management might choose to promote the ESSC as a "must see" attraction when visiting Edmonton. A greater understanding of location of domicile and visitors to the ESSC should prove valuable in attracting and retaining participants.

Level of Education

Of the 197 respondents who completed the questionnaires, approximately 44% indicated they held a university degree. Approximately 30% had completed senior high school and 20% had completed a technical program. The remaining 6% had completed only junior high school grades or lower. The data indicate respondents had attained a relatively high level of education. Understanding the levels of education of visitors to the ESSC may enable management to determine appropriate methods of communication for the promotion and marketing of the facility.

Household Income

When asked to indicate the total annual household income, approximately 63.2% of 163 respondents reported they earned in excess of $35,001 and the remaining 36.8% less than $35,000. No statistical significant differences in the data were observed regarding household income for visitors to the facility. This may suggest that admission prices to the facility are appropriately positioned, as no one range of income is significantly different from the other. Knowledge of varying income levels of visitors to the ESSC can be vital information when developing marketing strategies regarding pricing guidelines for the facility.

Motivation and Satisfaction

Respondents had the opportunity to respond to a total of 38 items regarding either their motivations for selecting to view a specific show, or on their level of satisfaction after viewing the show of their choice. Results of a *t* -tests indicated that the means of the two groups differed significantly at p<.05 on ten of the 38 items. The results are displayed in Figures 3, 4 and 5.

Figure 3
Mean Motivation and Satisfaction Scores
for Items 2, 37 and 38

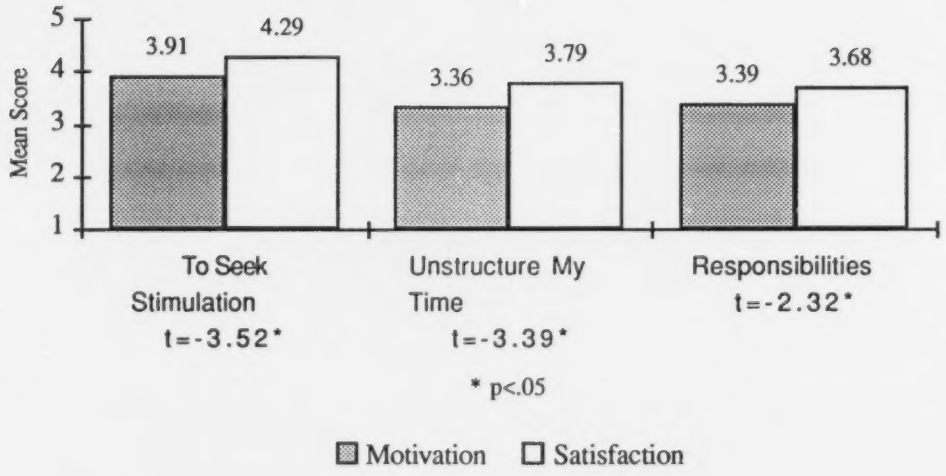


Figure 4
Mean Motivation and Satisfaction Scores
for Items 5, 6, 10 and 15

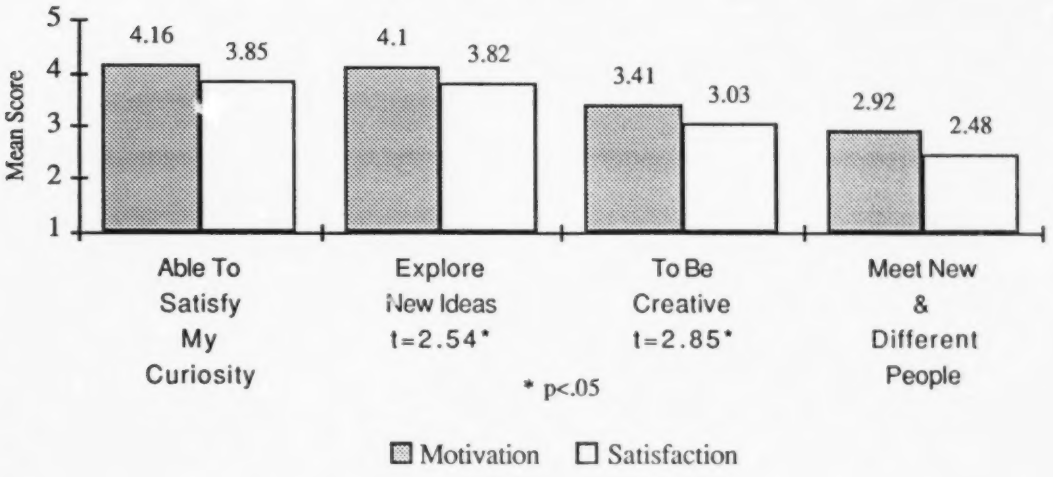
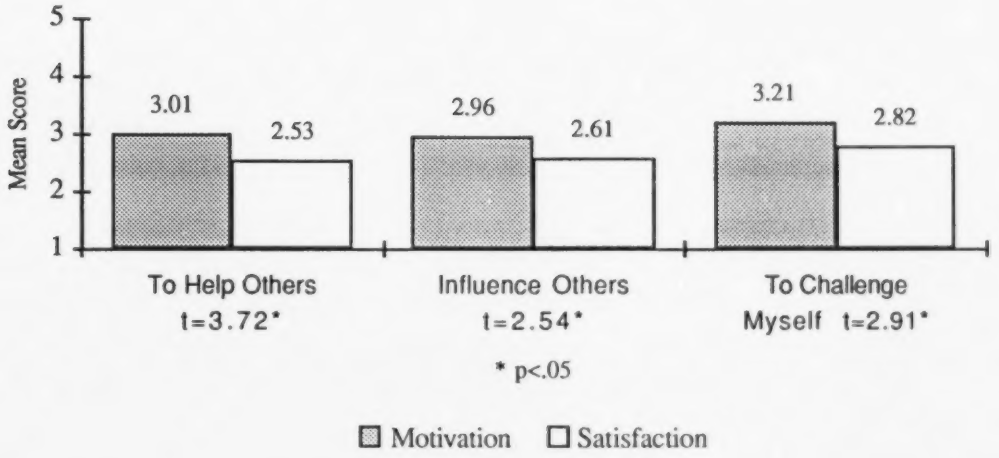


Figure 5
Mean Motivation and Satisfaction Scores
for Items 16, 19 and 25



Of the ten statements for which differences in means were significant at $p<.05$ level, seven were items on the motivation scale which had means higher than the comparable items on satisfaction. The seven items were to the statements "I am able to": "satisfy my curiosity"; "explore new ideas"; "be creative"; "meet new and different people"; "help others"; "influence others"; "challenge myself". Prior to the experience, respondents had anticipated that these expectations would be realized while the activity was not scored as highly following the experience. For example, prior to attending a program, respondents reported that to "influence others" was a strong motivating factor for their involvement in the activity. However, those completing the satisfaction questionnaire after experiencing the program scored the statement to "influence others" much lower, suggesting that the opportunity to influence others was not as great as might have been expected prior to involvement in the activity. Likewise, those indicating that they had been motivated to attend a show in order "to challenge myself" had scored the question more highly than those completing the satisfaction questionnaire following the presentation. It would appear that a setting such as this would not prove as suitable for challenging one's self. This may hold true for those individuals who had been motivated to visit a show in order "to explore new ideas" and had scored this higher than those who had experienced the performance and who may not have been as pleased with this aspect of the presentation. This suggests that the opportunity for individuals to gain insight into new ideas was not as great as was anticipated prior to engaging in the activity, which resulted in the lower scores following viewing the show.

Conversely, satisfaction responses to "I found it stimulating"; "I enjoyed the unstructured time" and "I appreciated getting away from the responsibilities of my everyday life" had means higher than the similar motivational questions. For example, at the conclusion of a show, visitors reported that they found the performance stimulating and scored it relatively high. Similar degrees in which the show might be stimulating were not anticipated by those who completed the motivation questionnaire prior to their participation.

The means of the remaining 28 items in Table 4 on motivation and satisfaction did not differ significantly. Those completing the motivation questionnaire prior to attending a program scored the anticipated experience to the same degree in which those completing the satisfaction survey did, following the conclusion of the presentation. For example, the question on "I am able to expand my interests" and "I expanded my interests" had means that were remarkably close. Similarly, the question "I am able to expand my knowledge" and "I expanded my knowledge" had means that were almost identical. The items which were scored the highest for motivation and satisfaction include the above, as well as, "to learn more about things around me", "discover new things", "use my imagination", "do something simple and easy", "relax mentally", "relieve stress and tension" and "avoid daily hustle and bustle". This data should serve as a strong indicator that many of the above items can be considered important reasons visitors may attend programs at the ESSC.

The items in which respondents neither agreed or disagreed as motivations or satisfactions with the show included "to build friendships with others", "have others think well of me", "opportunity to reveal my thoughts", "feeling of belonging", "gain other's respect", and "master things". This suggests that for the most part these items are not considered important by the respondents as motivations to attend a show, or in the level of satisfaction achieved following the viewing of a particular show.

To further develop these investigation, information reported by the respondents regarding either their motivations for attending a specific show, or on the respondents level of satisfaction after viewing the presentation should include a separate analysis of motivation and satisfaction means for males and females.

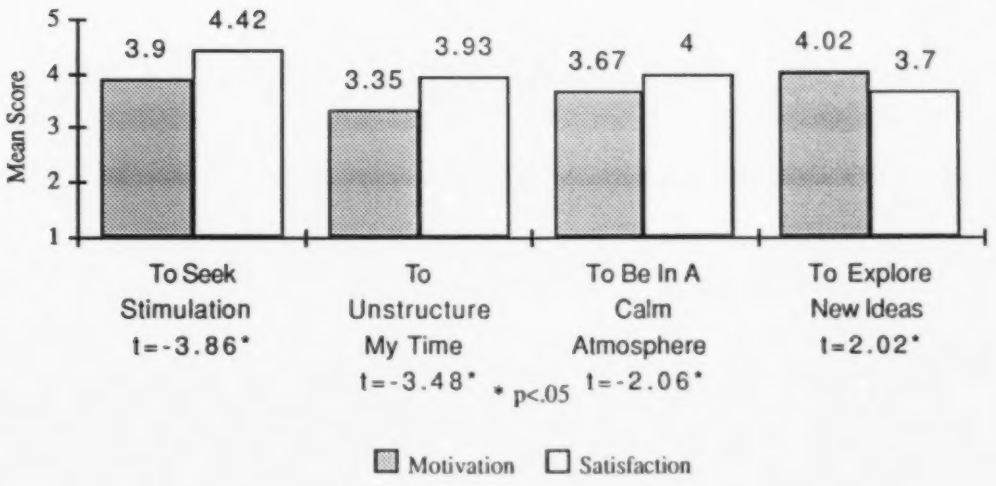
Table 4
Mean Motivation and Satisfaction Scores
Not Statistically Different

	Mean Scores	
Question	Motivation	Satisfaction
Discover New Things	4.21	4.04
Learn About Things Around Me	4.20	4.07
Expand My Knowledge	4.11	4.06
Expand My Interests	4.00	3.94
Make Things More Meaningful	3.80	3.88
Use My Imagination	3.75	3.54
Something Simple and Easy	3.72	3.65
Relax Mentally	3.66	3.66
Relieve Stress and Tension	3.66	3.68
In a Calm Atmosphere	3.63	3.84
Avoid Daily Hustle & Bustle	3.51	3.60
Slow Down	3.42	3.45
Be With Others	3.37	3.37
Learn About Myself	3.27	3.11
Challenge Myself	3.21	2.82
Feeling of Achievement	3.12	2.99
Interact With Others	3.08	2.92
Avoid Crowded Areas	3.07	3.20
See My Abilities	3.02	2.83
Be Alone	3.00	2.88
Have Others Think Well of Me	2.99	2.75
Be Good at Doing Them	2.97	2.73
Master Things	2.95	2.81
Feeling of Belonging	2.94	3.00
Opportunity to Reveal my Thoughts	2.89	2.74
Build Friendships With Others	2.86	2.81
Gain Other's Respect	2.76	2.66
Have Others Think Well of Me	2.73	2.78

Analysis of Motivation and Satisfaction Means for Males

To develop a more complete understanding of leisure motivations and satisfactions it is important to discuss the data collected on male visitors to the ESSC. Differences between motivation and satisfaction means for males were analyzed using a *t*-test. The results indicated that only four of the 38 questions were significant at the $p<.05$ level (see Figure 6). Three of the satisfaction items had means significantly higher than the comparable motivation questions. These are "I am able to seek stimulation", "I am able to be in a calm atmosphere" and "I am able to unstructure my time". The fourth item, "I am able to explore new ideas" had a mean for motivation higher than that of the similar question on satisfaction.

Figure 6
Mean Motivation and Satisfaction Scores
for Male Visitors



Male visitors to programs at the ESSC reported being pleased with the opportunity "to seek stimulation", the experience of being in a "calm atmosphere" and the ability "to unstructure" their time. It is reasonable to conclude that the degree in which these three elements were impacted as a result of participating in the activity may not have been predicted prior to engaging in the activity, and therefore were not scored as highly by those completing the motivation questionnaire. For instance, male visitors may have been motivated to view a particular show in order to seek stimulation. The particular show may have provided male visitors with a greater opportunity to be stimulated due to the nature of the special effects or the message that the show carried, and which would only be realized after viewing the program.

The questions "to be in a calm atmosphere" and "to unstructure my time" are both questions that portray a feeling of relaxation. In both cases the male visitors to the ESSC responded more favourably to the level of satisfaction than those anticipating these as reasons for visiting the ESSC and reporting their response on the motivation questionnaire prior to viewing the particular show of choice. It is quite possible that the motivation population of male visitors had not anticipated the show and its environment to offer the degree of opportunity to experience a calm atmosphere or that they would feel as if their time was being unstructured.

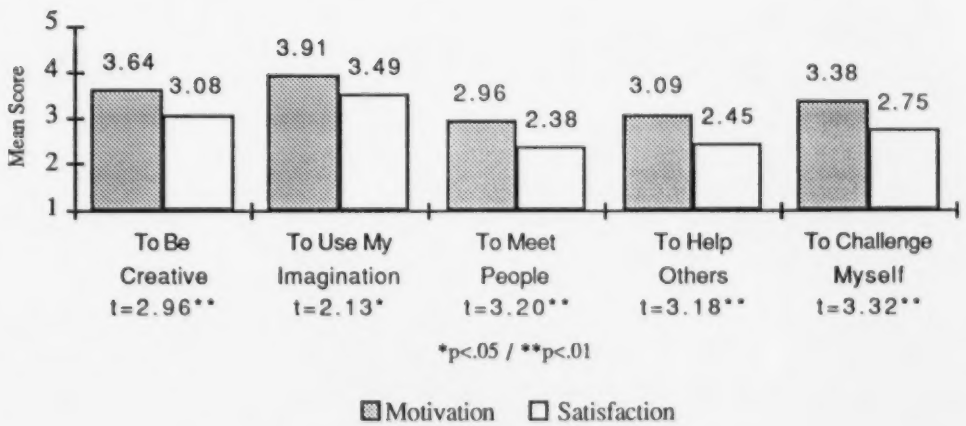
The question "I am able to explore new ideas" had a reported mean for motivation higher than the comparable question on satisfaction. It is possible that the male visitors were motivated to visit in order to gain further insight on a certain topic from the show they were viewing. Nevertheless, male visitors completing the satisfaction questionnaire after attending the program scored the ability "to explore new ideas' much lower than the male counterparts had done prior to viewing the presentation. This suggests that limited opportunities exist for the exploration of new ideas in the shows male visitors chose to view. It is also possible that a theatre setting may greatly reduce the opportunity to explore new ideas simply due to the nature of that particular environment. Opportunity to explore

new ideas is usually done through an interactive process, while the programs tested in this study required each person to sit quietly throughout, precluding the playing with an idea via social or physical interaction.

Analysis of Motivation and Satisfaction Means for Females

To develop a more complete understanding of leisure motivations and satisfactions it is important to discuss the data collected on female visitors to the ESSC. Differences between motivation and satisfaction means for females were analyzed using a *t*-test. The results indicated that five of the 38 questions were significant at the $p<.05$ level, of which four were also significant at $p<.01$ (see Figure 7). All five statements had means significantly higher for motivation than for satisfaction on comparable questions. These were "I am able to be creative"; "I am able to use my imagination"; "I am able to meet new and different people"; "I am able to help others"; and "I am able to challenge myself".

Figure 7
Mean Motivation and Satisfaction Scores
for Female Visitors



The results presented in Figure 7 tend to indicate that satisfaction of motives of female visitors for viewing shows during this study appear to have gone unfulfilled. In all five of the above questions, the mean satisfaction score is much lower than that of the comparable motivation scale. Female visitors prior to attending a program at the ESSC anticipated they would have the opportunity "to be creative". The ensuing level of satisfaction reported by those having seen the presentation, reflecting a lower score, suggests that the performance provided limited opportunities for creativity than had been anticipated by those completing the motivation questionnaire. Likewise it could be assumed that for those motivated to view a show to use their imagination that the opportunity to do so was not be available.

The information from the question on meeting new and different people indicates that for the most part, female visitors neither agree nor disagree with this as being a motive for viewing a show. Nevertheless, as the mean for this question reflects, that most female visitors strongly agree that they were unable to meet new and different people. Reviewing the question as it was intended would suggest that in most cases people are not going to meet new and different people in a dark theatre. However, it is possible that those responding to the motivation questions prior to viewing a program may be thinking of the overall ESSC in relation to meeting people, while those completing the questionnaire following a show have only that experience to consider.

Reasons for Visiting the Edmonton Space and Science Centre

Respondents were given the opportunity to provide up to three reasons indicating why they were visiting the ESSC on that particular day. The responses were then grouped into categories of similar responses, in order to establish a pattern of reasons for visiting the ESSC. The categories of Program; Social; Facility/Site; Educational; Special Occasion; Emotion; Recommendation; and Other were developed from the responses provided.

Category Descriptions - Reasons for Visiting the Edmonton Space and Science Centre:

Program - most respondents indicated that they were visiting to view either the Blue Planet, Mozart, Planet in Peril, Exhibits or other presentations that were provided on that particular day.

Social - many respondents indicated that they had come to the ESSC to bring, or to be with family members or friends. The outing was considered social in nature.

Facility/Site - several respondents indicated that they were visiting to see the IMAX Theatre, to view the grounds, to shop at the store or to visit a building designed by architect Douglas Cardinal.

Educational - different respondents indicated that they were visiting because they found the shows/exhibits educational, interesting, or because they were "curious" to learn more about space and Earth.

Special Occasion - certain respondents indicated they were visiting because it was a holiday, because it was Earth Week, because it was Volunteer Appreciation Week, or because they were on vacation.

Emotion - a number of respondents described an emotional feeling such as fun, enjoyment, excitement as reasons for visiting.

Recommendation - several respondents indicated that the ESSC or a particular show had been recommended to them by friends or hotel operators as something they should see.

Other - included responses that did not fit any of the other grouping of responses. This category included reasons such as "nothing to do," "just driving by" or "poor weather".

The category with the highest frequency of reasons for visiting the ESSC was that of "Program", (see Table 5). It should not be considered unusual that the category of "Program" was most frequently reported by visitors as the primary purpose of the ESSC is to provide programs and exhibits which will attract people to visit the facility.

The importance of this category in attracting visitors to the facility provides insight into several areas for marketing the ESSC. First, since most visitors indicated that they were there to see a particular show or exhibit, it is important that these presentations be promoted as widely as possible to attract first time visitors, as well as those who have been to the ESSC on prior occasions. Secondly, it is important that facility management ensure that programs and exhibits that are provided be of highest quality possible in an attempt to guarantee long term visitor retention.

The second most reported reason for visiting the ESSC was "Social." In most cases, respondents accompanied either family members or friends, thereby making the outing a social event or activity. Most people attending a show or exhibition did so with others. Employing the social element as a means of promoting the ESSC has several advantages. First, the ESSC can be promoted as a good place to go in order to be with family and friends. Secondly, since many respondents identified family as part of this category, the ESSC could be promoted as a safe family environment, one that encourages family unity and kinship.

The third most reported reason for visiting the ESSC was that of "Facility/Site". Due to the unique design of the building, especially as seen from the outside, some visitors may be attracted to the ESSC by its special appearance. This may be especially true for those simply driving who become curious to see more of the facility and its grounds. Several

Table 5
Reasons for Visiting the Edmonton Space and Science Centre

Category	Reason I	Reason II	Reason III
	Percentage of Responses N= 202	Percentage of Responses N= 49	Percentage of Responses N= 4
Program	46.5%	34.7%	
Social	21.3%	16.3%	25.0%
Facility/ Site	11.9%	20.4%	75.0%
Education	5.9%	12.2%	
Special Occasion	6.4%	2.0%	
Emotion	4.0%	10.2%	
Recommenda-tion	2.0%	2.0%	
Other	2.0%	2.0%	

respondents indicated they were visiting because they were familiar with the work of architect Douglas Cardinal and wanted to see another example of his creative architecture.

The fourth most reported category of reasons identified for visiting the ESSC was that of "Educational". This should not be considered an unexpected response for visiting, as the ESSC is promoted as a space and science centre and place of learning. A promotional brochure used by the facility indicates that "the Edmonton Space and Science Centre...providing interesting and informative education for you" supports the notion of visiting the facility to learn about the world around us. Predominantly, ESSC programs and exhibits focus on astronomy, the physical sciences, space sciences and environmental awareness in an interactive learning setting.

The category of "Special Occasion" was the fifth most reported response. Some respondents were visiting to celebrate what they considered to be a special occasion. Several of the responses included occasions such as celebrating a holiday or being on a honey moon. Understanding that some visitors come to the ESSC to celebrate something personally significant, could be used in the development of a marketing approach to entice others to spend their special day at the facility. With the number of special occasions that exist (birthdays, anniversaries, graduations, et cetera) the opportunities available to promote the use of the ESSC are endless. For example, an anniversary package could be developed which might include a specially designed laser light show for the celebrating couple and their friends and family and a special celebration following in the cafe. The development of special packages offered for special occasions could assist in attracting more visitors to the ESSC.

The category of "Emotion" was the sixth most frequently reported reason for visiting the ESSC. This category includes responses such as "exciting", "fun" and "enjoyable". The respondents choice of words to describe why they visit the ESSC indicate that they had experienced previously, or anticipated, these types of emotional feelings to occur with their visit. The use of responses, such as "exciting", "breathtaking", "exhilarating", which were

identified in the category of emotion could be used in the development of promotional materials for the ESSC which communicate to potential visitors, the experiences that have been realized by others before them. The strategy, of a marketing initiative like this, is that the use of certain words will portray specific images of fun and excitement to encourage others to visit the ESSC.

The category of "Recommendation by Others" contains the seventh most reported reasons for visiting. Some respondents reported they were visiting the ESSC on the advice or recommendation of a friend or family member, hotel employee, or as a result of hearing a positive show review by a local radio station. Staff of the ESSC should realize how important recommendations by others, or "word of mouth" advertising can be to the success or failure of programs. The development of a marketing approach for the ESSC should encourage people to recommend shows or activities to family, friends or to listening audiences, but only after every effort has been made to ensure visitors to the facility have received a positive experience.

The remaining category "Other," included responses different from those identified in the previously described categories . These included responses such as to "kill time", "poor weather", or "something to do". Although the category was made up of many unlike responses, it indicates that programs at the ESSC can provide individuals with leisure opportunities even when they are undertaken only to kill time or relieve boredom.

Understanding the reasons of individuals for visiting the ESSC can assist management in the development of a marketing plan which not only attracts new participants to the facility, but ensures that the needs of current patrons are being fulfilled in order to retain these individuals. Providing leisure opportunities at the ESSC with an emphasis on the categories of Program, Social, Facility/Site, Educational, Special Occasion, Emotion, Recommendation by Others, and to a lesser extent Other; should aid management in retaining participants over the long term.

Reasons for Not Visiting the Edmonton Space and Science Centre More Often

Respondents were given the opportunity to provide up to three reasons indicating why they did not visit the ESSC more often. These reasons were grouped into categories of similar responses in order to establish a pattern of why individuals had not visited the ESSC more often. The categories of Geographic Considerations, Other Commitments, Lack of Advertising, Pricing/Cost, Same Program, Transportation Limitations, Service Dissatisfaction, and Other were developed from the responses provided.

Category Descriptions - Reasons for Not Visiting the Edmonton Space and Science Centre More Often

Geographic Considerations - several respondents indicated that they lived out of town and only visited the ESSC when in Edmonton. Some respondents living in Edmonton reported that the ESSC was simply "too far away" for them to visit more often.

Other Commitments - some respondents indicated that they were too busy to visit the ESSC due to work obligations, family commitments, a general lack of time and various other constrains caused by day to day responsibilities which restricted discretionary time.

Lack of Advertising - a number of respondents reported that they were often not aware of what new programs or shows were being offered at the ESSC. As well, some indicated that due to a lack of advertising that the ESSC was not something they considered when making plans for an outing.

Pricing/Cost - a few respondents indicated that shows and presentations were too expensive for them to attend more often. As well, several respondents noted that the length of the shows did not warrant what they regarded as a costly admission.

Same Program - certain respondents indicated that the shows presented at the IMAX, Star and Laser Theatres, and the ESSC exhibits did not change often enough to justify more frequent visits.

Transportation Limitations - a few respondents indicated that they had to rely on public transit or other people to get to the ESSC. Dependence on these forms of transportation impacted negatively on frequency of visits. Some indicated that the distance of the parking lot from the building and therefore influenced negatively the number of visits they made.

Service Dissatisfaction - some respondents indicated that they had not been pleased with the quality of service from staff that they had experienced on previous visits. Others suggested that exhibits and certain parts of the facility were poorly maintained.

The category with the most frequently reported reason for not visiting the ESSC more often was that of "Geographic Consideration" (see Table 6). The frequency of this response should be expected when consideration is given to the relatively high proportion of visitors previously identified in Figure 2, residing outside of Edmonton. However, there were some Edmonton residents surveyed in this study who indicated that the facility was too far away from where they lived, therefore impacting the number of visits they made to the ESSC.

Geographic restrictions may have a great bearing on the frequency of visits an individual can make to the ESSC whether people live 20 kilometers or 200 kilometers away from the facility. However, other options exist to get people involved in ESSC programs. The ESSC could introduce a satellite program, where certain programs and activities could be delivered in different parts of Edmonton, or in other Alberta communities. Through the introduction of a marketing initiative such as this several things can result. First, leisure opportunities to participate in ESSC programs increases for those normally restricted by

Table 6
Reasons for Not Visiting the
Edmonton Space and Science Centre

Category	Reason I	Reason II	Reason III
	Percentage of Responses N= 166	Percentage of Responses N= 25	Percentage of Responses N=2
Geographical	35.5%	8.0%	50.0%
Other Commitments	28.9%	24.0%	
Lack of Advertising	8.4%	20.0%	50.0%
Same Program	8.4%	4.0%	
Pricing/ Cost	7.8%	16.0%	
Transportation	3.6%	12.0%	
Service Dissatisfaction	2.4%	12.0%	
New to City	3.6%		
Other	1.2%	4.0%	

geographic considerations. Secondly, a satellite program delivered in different communities promotes the programs and services of the "base station" in Edmonton, which may lead to an increase in the number of new visitors, but at the same time encouraging retention among former visitors when in the vicinity of the ESSC.

The second most reported set of reasons for not visiting the ESSC more often was "Other Commitments". As the responses to this question indicated, many of the visitors felt obligations such as work, family or the ongoing day to day responsibilities of life simply did not allow time to visit the ESSC more often. Although it is difficult to determine how each individual will meet life's day to day obligations, it is possible to develop programs and activities which can better meet the needs of those restricted by their time limitations. One marketing approach could be to provide greater flexibility in the hours of operation of the facility, thereby making the facility more accessible for those involved in shift work and other time restricting duties. It is also noted that the facility is closed on Mondays.

The third most frequently reported reason for not visiting the ESSC more often was "Lack of Advertising". Respondents indicated that they often did not think about visiting the facility, or that they simply were unaware of what programs were being offered due to a lack of advertising and promotion. When individuals do not know what programs or services are being offered through an organization the obvious result will be limited involvement with the sponsoring agency. Lack of advertising can be easily remedied, even if financial restrictions are a concern. The ESSC must ensure that the programs and services that it offers are marketed accordingly, not only to attract new visitors, but to let those who have been retained over the years know what is happening regarding changes in programs, et cetera.

The fourth most reported reason for not visiting the ESSC more often was "Pricing/Cost". Many of the respondents felt that the fee charged to view shows was quite high. In some cases the cost, in combination with the short duration of the show, resulted in the respondent feeling they had not received the appropriate value for their dollar.

Some visitors, may not understand the special technology required for the development of shows such as the IMAX, adding greatly to its expense, and limiting the length of the finished product. As well, when compared to the showing of cinema films, which requires a less sophisticated theatre, the limited availability of facilities for IMAX, Star Show and Laser Light Shows impact significantly on the overall cost of producing and provision of shows of this nature. However, there still remains the fact that the shows for some are simply viewed as being expensive, and therefore impact the number of visits the individual may make to the ESSC. In order to reduce the number of visitors that feel that the prices are to high, ESSC management could provide information on how the various shows and exhibits are developed, and how the specialized production costs are reflected in the price of admission. This increased awareness might result in a more tolerant and understanding paying customer.

The fifth most reported reason for not visiting the ESSC more often was the perception that the "Same Program" would be offered. Respondents reported that the displays and exhibits were hardly ever changed, and that the various IMAX, Laser and Star performances were shown for too long a time period. Some respondents noted that there was very little new from visit to visit that, therefore there was no need to come to the ESSC more often. This category is somewhat related to the category of Pricing/Cost. Due to the nature and cost of producing shows such as the IMAX, the availability of new shows to be presented at the ESSC is limited, therefore a show may be presented for several months without change. As well, the permanency of many of the exhibits arises because of the limited number of new discovery's about space and earth, and ultimately the costs incurred for the production of new exhibits, whether based on past or new events.

Although shows and exhibits may not change as often as some visitors to the ESSC would like, an increased understanding of why this is the case may reduce some of the concerns expressed by patrons. Nevertheless, it is important that management understand

the impact this may have on the number of visits made to the facility and ensure shows and exhibits are upgraded and modernized whenever possible.

The sixth most frequently cited reason for not visiting the Space and Science Centre more often was that of "Transportation." Several of the respondents indicated that it was too difficult for them to travel to the ESSC because their transportation was dependent upon others, or they relied on public transport. Visitors relying on public transportation to visit the ESSC may find the journey difficult and time consuming, especially when considerations such as bus scheduling, transfers, time of day or week when travelling, and holiday schedules are taken into account. In several cases, respondents to the ESSC noted that the parking lot was too far away from the main entrance, thereby making it difficult for elderly, disabled, and pregnant individuals to get to and from the facility, which ultimately reduced the number of visits made to the ESSC. It can be recognized that the limitations for those having to rely on others or public transport could impact the number of visits made to any facility. As well, for some the inconvenience of a poorly situated parking lot might limit the number of visits made to a facility such as the ESSC.

Several options exist for reducing the impact that Transportation limitations may have on number of visits to the ESSC. One area that could be explored would be the use of a "space" shuttle from different parts of the city and bedroom communities to the ESSC. This would help in doing away with bus transfers, waits at bus stops and poor scheduling in non-peak hours. As well, a shuttle could also be used to bring residents of retirement homes, clubs and community organizations to the facility, which would increase the number of visitors to the ESSC. To reduce concerns regarding the distance of the parking lot from the entrance, several possibilities could be considered. Reserved parking for individuals requiring assistance could be established by the main entrance. The introduction of valet parking or drop off area at the entrance. These solutions, and a shuttle service could positively impact the frequency of visits, and over the long term enhance the likelihood of participant retention.

The seventh most reported reason for not visiting the ESSC more often was the category of "Service Dissatisfaction". Several visitors to the facility indicated that in the past unhelpful staff or unpleasant situations/conditions had reduced the quality of their visit and therefore reduced their desire to visit the ESSC more often. Promoting service quality with staff is an essential part of any marketing plan. Through an internal marketing plan, employees should be encouraged to understand the significance of their actions and how they may influence the quality of the visitor's experience. Management at the ESSC should ensure that service quality be a part of their marketing approach in order to achieve participant retention.

The eighth category was that of "New to the City". It was evident here, that these new residents were not familiar with the ESSC and its programs and simply had not yet had an earlier opportunity to visit. In order to promote the ESSC to new residents of Edmonton and surrounding areas, management could provide information on programs and services to organizations like "Welcome Wagon" or Immigrant services who could provide brochures directly to this selected group.

Determining why individuals do not visit the ESSC more often is as important in the development of a marketing plan as is understanding why they come. It is vital for the long term success of any organization to know why they attract participants and why they lose them. In gathering this information, management can determine what needs to be done to not only attract new visitors to the ESSC, but what they must do to retain them.

As participant retention was a focus of this study the following two sections will address in detail reasons provided by visitors to the ESSC regarding their intent to return in the future.

Reasons for Visiting the Edmonton Space and Science Centre in the Near Future

When respondents were asked whether they would visit the ESSC again in the near future the overwhelming response was "Yes". Approximately 90% indicated they would return to visit the ESSC in the near future.

Respondents were given the opportunity to provide up to three reasons why they would visit the ESSC in the near future. However, respondents provided only one or two reasons. These replies were then categorized by like responses in order to establish a pattern of reasons for future visits. The categories of Program; Education; Emotion; Facility/Site; Social; and Other were developed from the responses provided.

Category Descriptions - Reasons for Future Visits to the ESSC:

Program - most respondents indicated that they would visit the ESSC again in the near future to view either the IMAX, Laser Light Show, Star Theater, Exhibits or other entertainment that was being provided.

Education - several respondents indicated that they would visit again in the near future to attend shows and view/interact with exhibits in order to gain a greater understanding and appreciation of space and earth.

Emotion - a few respondents described an emotional feeling such as fun, enjoyment, excitement as reasons for future visits to the ESSC.

Facility/Site - some respondents indicated that they would visit again in the near future to see the IMAX Theatre, to view the grounds, and to enjoy the building and its static displays.

Social - certain respondents indicated that they would come to the ESSC to bring family or friends.

Other - a small portion of respondents indicated they would just like to come back. Some had no specific reason for why they would return in the near future, but the intention to return was indicated. A few identified items like friendly staff and overall good service as a reason for future visits to the ESSC.

The category with the most frequently reported reason for visiting the ESSC in the near future was that of "Program", (see Table 7) . Respondents indicated that they would like to view additional programs, such as other IMAX, Laser Light or Star Theatre presentations and exhibits, that were offered at the facility and would return in the near future to do so. The indication that the category of Program is the number one reason for future visits, and that Program was identified earlier as being the reason most respondents were visiting the ESSC, suggests that this category should be a major component of any marketing plan.

The second most reported response for visiting the ESSC in the near future was "Education". Most respondents indicated that the opportunity to gain a greater understanding and appreciation of space and earth by attending shows and interacting with exhibits was important to them regarding visiting the facility in the future. It would appear in reviewing this category, that management should continue to market the ESSC as a facility which provides educational opportunities for its visitors through the use of shows and exhibits.

The third most reported response for visiting the ESSC in the near future was the category "Emotion". Respondents described feelings such as "fun" and "excitement" as reasons they would want to return to the ESSC in the near future. Respondents described the pleasure they experienced from viewing shows they had seen, and would return in the

Table 7
Reasons for Visiting the
Edmonton Space and Science Centre
in the Near Future

Category	Reason I	Reason II
	Percentage of Responses N= 159	Percentage of Responses N= 59
Program	35.8%	23.7%
Education	26.4%	23.7%
Emotion	22.6%	18.6%
Facility/Site	8.8%	22.0%
Social	4.4%	8.5%
Other	1.9%	3.4%

future to attend other presentations in order to evoke these same feelings. Management should consider the use of words such as "excitement", "exhilarating", or "breathtaking", which emotionally attract individuals to take note of a story or advertisement, when developing promotional materials for the ESSC.

The fourth most reported reason for visiting the ESSC in the near future was that of "Facility/Site". Respondents indicated that they would return to see the IMAX theatre, to walk the grounds or to enjoy the building and its displays. The unique appearance of the building, combined with the attractive grounds and specialized theatres makes the facility/site a natural marketing tool. This uniqueness should be considered when developing marketing strategies for the facility. Pictures of the building and grounds, of the

theaters and galleries, should adorn all promotional materials used by the ESSC in order to portray the distinctiveness of the facility and to ignite the curiosity of the reader.

The fifth most reported reason for visiting the ESSC in the near future was the category of "Social". The respondents indicated that they would return with friends and family in the future. The most common response in this category was to bring out-of-town guests to the facility in the future. Management of the ESSC could develop a promotion whereby local residents would be encouraged to bring their out-of-town guests to visit the facility. A program of this nature could result in attracting new visitors to the ESSC and participant retention would be encouraged.

The final category was that of "Other". Respondents indicated they did not have specific reasons for why they would return, but indicated they would. Several indicated they would return as they found the staff friendly and were pleased with the overall good service. Although relatively few respondents mentioned the notion of friendly staff and good service, it is important that management consider this when developing a marketing plan. Internal marketing, training staff on public relations and effective communication are vital elements in the promotion of participant retention.

Reasons for Not Visiting the Edmonton Space and Science Centre in the Near Future

Respondents were given the opportunity to provide up to three reasons why they would not visit the ESSC in the near future. However, respondents provided only one or two reasons. These replies were then categorized by like responses in order to establish a pattern of reasons for not visiting the ESSC in the near future. These categories include Geographical Considerations; Transportation; Other Commitments; Financial Limitations; and Other.

Category Descriptions - Reasons for Not Visiting The ESSC in the Near Future

Geographical Considerations - most respondents indicated that they lived out of town and would not be visiting the ESSC in the near future. Some respondents living in Edmonton reported that the ESSC was simply "too far away" from their homes to consider returning on a more frequent basis.

Transportation Limitations - some respondents indicated that they had to rely on public transit or other people to get to the ESSC and therefore would not likely visit in the near future.

Other Commitments - a number of respondents indicated that they were too busy to visit due to work obligations or because of lack of time.

Financial Limitations - several respondents indicated that they could not afford to come to the ESSC more often, therefore they would not visit in the near future.

Other - certain respondents indicated they had no specific reason, but they did not plan to return in the near future.

The category "Geographical Considerations" was the most frequently reported reason for not visiting the ESSC in the near future (see Table 8). Many of the respondents indicated that because they lived outside of Edmonton they were not sure when they would visit the ESSC again. Several of the respondents indicated that even though they lived in the city, the distance from their homes to the ESSC was too great and that they would not visit again in the near future. As little can be done to change the distance between an individual's home and the ESSC, it is important that other ideas be considered to encourage

out-of-town and across-town residents to visit the facility. Special promotions with Travel Alberta could be arranged, special packages could be developed with local hotels, a guest registry could be developed to promote new programs. Various marketing approaches exist to encourage the retention of out-of-town guests. City residents that feel they live too far away from the facility also need to be encouraged to visit the ESSC more often. Earlier suggestions included a "satellite" program or "shuttle" service. There are methods to attract new, and retain regular, patrons. The vital link is putting a program in place.

Table 8
Reasons for Not Visiting the
Edmonton Space and Science Centre
in the Near Future

Category	Reason I	Reason II
	Percentage of Responses N= 19	Percentage of Responses N= 2
Geographical	57.9%	
Trasnportation	15.8%	
Commitments	10.5%	50.0%
Financial	10.5%	
Other	5.3%	50.0%

The second most reported response for not visiting the ESSC in the near future was that of "Transportation Limitations". Respondents indicated that as they had to rely on others, or public transportation to get to the ESSC that they would not visit in the near future. Transportation limitations may effect the frequency of visits to any attraction,

however, as mentioned earlier in the chapter, options such as a "shuttle" service may help to overcome this problem.

The third most frequent response for not visiting the ESSC in the near future was that of "Other Commitments". Respondents indicated that they would not visit in the near future due to work obligations or lack of time. Barriers to participation such as lack of time or work obligations may certainly impact the frequency of involvement in a leisure activity. Nevertheless, it is important to develop initiatives that can offset these barriers. Extended hours or special services may make it easier for some to participate in programs offered at the ESSC.

The fourth most reported response for not visiting the ESSC in the near future was the category of "Financial Limitations". Respondents indicated that they could not afford to come more often to the ESSC and therefore would not visit again in the near future. An option for attracting more visitors who might not normally feel that they can afford to visit the ESSC would be the introduction of "cheap seat" promotion. The idea would be to offer discount prices on seats when programs are normally not busy. The hope would be to encourage more visitors, especially those who feel they cannot afford the normal admission prices. Economically it probably makes more sense to fill a program for a lower than normal cost, then to have only a few participants.

The final category was that of "Other". Respondents indicated that they would not visit the ESSC in the near future, but provided no specific reason why. In many programs there will be a fringe group, one that tries something once and has no interest in doing it again. Although it is difficult to determine how to encourage future involvement for a group like this, the important element to remember is to offer quality programs and services which meet the needs of the majority of participants.

Previous Visits to the Edmonton Space and Science Centre

Since a focus of the study was to explore the notion of participant retention through an investigation of leisure motivations and leisure satisfaction, it is interesting to note that 71.6% of the respondents indicated that they had "visited the Space and Science Centre before". Of this group 48.3% responded that they had visited the ESSC "2-5 times per year" while the remaining 8.3% indicated they visited 6 times or more each year (see Table 9). Although it would appear that the ESSC has a successful rate of retention, it is important for management to determine what they would consider to be the ideal target. Through the creation of a benchmark it is possible to track the success of a marketing plan which encourages participant retention.

Table 9
Percentage of Previous Visits to the Edmonton Space and Science Centre

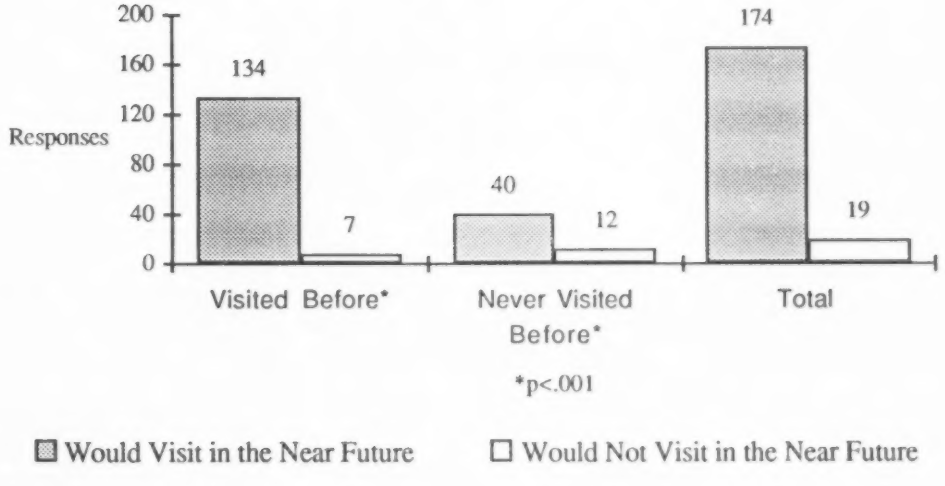
Once a year?	43.4%
2-5 times per year?	48.3%
6-9 times per year?	6.9%
10-15 times per year?	1.4%

Intention to Return to the Edmonton Space and Science Centre

Approximately 90% of the respondents indicated that they would return to the ESSC in the near future. When this information was cross tabulated with the information collected on previous visits to the ESSC, it was determined that 95% of those respondents who had visited the ESSC before, indicated they would return in the near future. When these

respondents who had never visited the ESSC before were asked whether they would return in the near future, approximately 77% indicated they would. Using a Chi-Square to analyze the data, significance at the $p<.001$ level was observed. This information is graphically displayed in Figure 8.

Figure 8
Intention for Return to the
Edmonton Space and Science Centre



The overall high percentage of respondents indicating that they would return to the ESSC in the near future is very impressive. This data suggests that most visitors to the ESSC during the time period of this study were satisfied with the shows, programs and activities offered.

Summary

In this chapter motivations and satisfactions for leisure involvement at the ESSC, as well as the relationships between motivations and satisfactions have been reviewed and discussed. Strategies and ideas have been introduced in an attempt to stimulate thought regarding the development of marketing initiatives to promote the ESSC, and in doing so to encourage the provision of quality services, which ultimately satisfy the motives for leisure involvement in programs and activities offered at the facility. It is hoped that the results from this study will aid the leisure professional through an increased understanding of leisure motivations and satisfactions, and give insight into the notion of participant retention.

CHAPTER V

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

Summary

The study which is the subject of this thesis was conducted in an attempt to learn more about motivations for leisure participation at the Edmonton Space and Science Centre and the degree to which these motives are satisfied as a result of involvement in a program of choice.

Analysis of the questionnaire data indicated that respondents visited the ESSC for a broad range of reasons. In general, the main motivations related to educational interests. The specific motivations with the six highest mean scores were as follows: "discover new things", "learn about things around me", "satisfy my curiosity", "expand my knowledge", "explore new ideas", and "expand my interests". Factors that ranked among the lowest sources of motivation included "having others think well of me", "gaining other's respect", "building friendships with others", "opportunity to reveal my thoughts", and "feeling of belongingness". In general, the lower sources of motivation related to interpersonal or social reasons for attending the ESSC.

The major satisfactions respondents derived from participating related to experiencing stimulation, learning about things, expanding knowledge and discovering new things. Respondents derived least satisfaction in relation to meeting people, helping others, gaining other's respect and additional social or skill related items.

A comparison of mean scores on motivation and mean scores on satisfaction indicated that there were statistically significant differences on ten of the 38 items. On three of these items the satisfaction scores were higher than the motivations: "to seek stimulation", "unstructure my time" and "to avoid everyday responsibilities". The differences between

the two groups indicate that respondents derived higher levels of satisfaction on these items than they actually anticipated.

The seven items on which satisfaction scores were lower than motivation scores related to educational, self-development and social factors. The educational items were, specifically, exploring new ideas and satisfying curiosity. Satisfaction was lower than motivation on being creative and having a challenging experience. Influencing and helping others as well as meeting new and different people were social or interpersonal items on which motivation exceeded satisfaction

An analysis of responses to open-ended questions indicated that respondents visited the ESSC for the following reasons: "Program," referring to the various shows and exhibits visitors could attend; "Social," opportunities to spend time and interact with family members and friends; and "Facility/Site," an outing to view the creative building design, grounds or to shop at the science store. Also identified were the most frequently reported reasons for not visiting the ESSC more often which included: "Geographical Considerations", residing too far away from the facility; "Other Commitments", personal obligations or general lack of time; and "Lack of Advertising", limited awareness of activities or programs available at the ESSC.

The most common reasons identified for visiting the ESSC again in the near future were: "Program", to view new or different shows and exhibits; "Education", to learn more about space and earth; and "Emotion", to experience additional enjoyable, fun and exciting shows and exhibits. Reasons most commonly identified for not visiting the ESSC again in the near future were: "Geographical", reside too far away from the facility; "Transportation Limitations", rely on public transportation or others to get to the facility; and "Other Commitments", other obligations or general lack of time.

Reasons provided by the respondents during the study identify factors which clearly influence decision, on whether or not, to visit the ESSC. The reasons provide insight into areas of the operation that are successful (IMAX, Laser Light and Star Theatre

presentations), components requiring improvement (lack of awareness of programs and facility), factors influencing future visits (learning opportunities, new programs) and barriers to additional participation (work obligations, limited transportation). This information can play an integral role in the development of marketing strategies designed to enhance satisfying leisure experiences, and ultimately increase participant retention at the ESSC.

At the conclusion of the data analysis, it was evident that the respondents "intention" for future visitations could be recorded, but whether or not these individuals will actually return to the ESSC is difficult to determine. Predicting participant retention simply becomes the prediction of intent for future participation. Results from the study reported that 95% of those respondents who had visited the ESSC before indicated they would return again. Although this suggests most respondents who have visited the ESSC on previous occasions, and have indicated their intent for future visits, will return in the future, predicting participant retention remains unattainable. Therefore, monitoring participant retention can only be completed through methods involving post-consumer communication, such as pencil and paper surveys, mail campaigns, telephone and personal interviews. Opportunities to communicate and receive feedback from both satisfied and dissatisfied visitors can significantly impact both the quality of a program and the number of repeat participants.

The research provides a greater understanding about the participation patterns of visitors to the ESSC. During the period in which the study was conducted, the highest number of participants were from the North West quadrant of the city. This is also the quadrant where the ESSC is located. The area of the city with the least representation of visitors was the South East quadrant . According to Rinker (1991) "Most centres report that 80 percent or more of their users come from within a five mile radius: proximity to a center seems to be a more significant criteria than community of residence for most users" (p.42). The information collected during this study lends support to the above statement, however

it is interesting to note that when all non-residents of Edmonton were grouped, they were the largest collective group visiting the ESSC. The nature of this information can certainly impact in which geographical areas the ESSC promotes its programs and services, in that consideration must be given to the markets which can most successfully be reached in an attempt to not only attract new participants, but encourage the retention of past patrons.

Neither level of education, gender nor household income were shown to differ significantly for respondents. This suggests that programs and services offered appeal to a wide segment of the general population and not to just one specific group. As this was the case, one could assume that marketing the facility need not be as concerned with targeting individuals by education, gender or household income, but by geographical area as previously addressed. Whatever target market is chosen, the approach must include strategies that are attractive to the motives, needs and desires of this particular population.

Almost half of the visitors surveyed indicated they visit the ESSC between 2 and 5 time per year. Considering some of the reasons reported by respondents for not visiting the ESSC more frequently (same shows and exhibits, too expensive, poorly maintained exhibits) it is reasonable to conclude that, more visitors than fewer, are satisfied with their leisure experience. Based on the number of visits indicated it is reasonable to suggest that the ESSC has a following of "loyal" patrons or retentive customers.

Recommendations

As a result of reviewing the findings of this study, several themes are apparent regarding future research directions. As well, practical program management considerations are presented.

Future Research

The development of measures to examine participant retention in leisure programs consists of several possibilities for future research. The first would be to concentrate only on those individuals who have been identified as repeat participants in a leisure activity. This would help distinguish between those who have returned to a leisure activity in which they have previously participated, and those who have expressed only their intent to participate in the leisure activity in the future. Ideally, to enhance the research validity in future studies of this nature, the number of subjects should be increased by 2 to 3 times the number used in this research project or approximately 400 - 600.

A second area for future investigation might include an examination of internal marketing, referring to customer service, staff-consumer communications and employee training, and its effect on consumer satisfaction. This is an area that this study did not deal with, although current literature suggests the importance of this subject (Mahoney, 1987). An examination of this kind should not only receive feedback from consumer, but should consider the experiences of both front line staff and facility management.

Programming Considerations for the ESSC

Marciani (1985) suggests that the major goal of leisure professionals involved in the provision of programs and services is to satisfy the needs of customers. Understanding the various motivations for involvement in leisure activities at the ESSC should assist the facility staff and management in the development and provision of quality programs and services. The management focus at the ESSC should be on the satisfaction of the motivational factors influencing participation in an activity. In the analysis, when the mean score for questions on satisfaction was lower than the comparable questions on motivation, the motivating factor for visiting was not fully satisfied. For example, individuals motivated to attend an ESSC program with a desire to be creative, scored this aspect of their visit higher in anticipation of the performance, than did those scoring the level of

satisfaction experienced following the performance. Mahoney (1987) supports the notion that leisure satisfaction is influenced by the differences in the expectation of what the experience will include, and what actually occurs. He suggests that the larger the difference between expectations and experiences, the greater the dissatisfaction.

Conversely, the same is true. Individuals whose expectations are fulfilled are more likely to visit the ESSC in the near future as the likelihood of new satisfying experiences will be anticipated. The satisfaction of motivation is but one reason for securing paying customers and encouraging them to return. The potential also exists that the participants will tell others of their satisfying leisure experience, which not only reinforces that individual desire to return, but promotes the experiences available. However, the likelihood that retention would occur is suggested by the literature. As in so many situations, there will always be variables that will influence the process of choosing to participate in a leisure activity and these will impact the retention process.

Marketing Strategies

Many visitors indicated that they would visit the ESSC more frequently if they knew what shows were being offered or were reminded of the programs and activities offered by the ESSC. There were also responses indicating that programs and exhibits are not frequently changed, therefore the need to visit the ESSC more often is not established. Another major consideration for market development is in the geographic location of the visitors place of domicile in relation to the ESSC. Many of the visitors do not reside in Edmonton. The most poorly represented area of the City visiting the ESSC was the South East quadrant.

This information is significant when developing market strategies for attracting visitors. Determining where to focus marketing attention becomes the significant question. Should efforts be increased to attract more visitors from South East Edmonton, where transportation may be a limiting factor or should marketing initiatives concentrate on out-of-

town guests and residents of North West Edmonton, who constitute the largest representative group of visitors to the ESSC? Recent suggestions from Crompton (1991) and Reichheld and Sasser (1990) indicate that it may be better to concentrate on existing patrons and serving them well, than on trying to create new customers. Attracting new customers can also be more costly and often less effective then marketing directly to existing patrons.

Since many of the respondents in this study were out of town visitors, another marketing approach that might serve the ESSC well, would be the promotion of the facility through various tourism partners such as Travel Alberta, the Edmonton tourist authority, the local hotel industry, or car rental agencies. Strength for this suggestion lies not only in the proportion of out-of-town visitors, but also the previously reported reasons for visiting the ESSC included in the category "Recommendation from Others", which noted that the facility had been suggested by hotel employees and local residents as a place to visit while vacationing in Edmonton.

Conclusion

Over the years research has described the many reasons for participation in leisure activities. More recently, some studies have identified the benefits and satisfactions to be gained from participation in these leisure pursuits. Nevertheless, little work has been completed to date in studying the direct relationship of the satisfaction, or lack of a relationship, on leisure motivations and the direct impact this has on participant retention. It is essential for those involved in the provision of leisure services to develop an understanding of the motivations involved in leisure participation and to ensure that every opportunity is made available for participants to realize their goals and achieve a satisfying experience through their involvement in leisure pursuits.

Although the study was not able to accurately identify the number of respondents who would return to the ESSC for future visits, it was able to show that a link between leisure motivation and the degree to which it is satisfied, may have bearing on an individuals desire to return to participate in leisure activities. The importance of such a finding has several benefits. First, it denotes the need for further investigation of the area of participant retention in leisure activities. Secondly, it validates how important it is for the leisure professional who are responsible for the development and provision of leisure opportunities to ensure that participants are satisfied with their leisure opportunities. Mahoney (1987) reveals that "once people find a recreational business ... that satisfies them they are likely to return time and time again"(p.5). Retaining participants, through the provision of quality leisure experiences that are designed to satisfy individual motives for involvement should benefit the long term success of the Edmonton Space and Science Centre.

REFERENCES

Beard, J.G., & Ragheb, M.G. (1980). Measuring leisure satisfaction. Journal of Leisure Research, 12 (1): 20-33.

Beard, J.G., & Ragheb, M.G. (1983). Measuring leisure motivation. Journal of Leisure Research, 15 (3): 219-228.

Bloch, P.H., & Bruce, G.D. (1984). The leisure experience and consumer products: An investigation of underlying satisfactions. Journal of Leisure Research, 16 (1): 74-88.

Borg, W.R., & Gall, M.D. (1983) Educational Research: An Introduction, White Plains, New York: Longman Inc.

Chase, D.R., & Cheek, N.H. (1979). Activity preferences, conclusions from a factor analytical study. Journal of Leisure Research, 11 (2):92-101.

Clawson, M., & Knetsch, J.L. (1969). The Economics of Outdoor Recreation. Baltimore: The John Hopkins Press.

Crandall, R. (1979). Social interaction, affect and leisure. Journal of Leisure Research, 11 (3):165-181.

Crandall, R. (1980). Motivations for leisure. Journal of Leisure Research, 12 (1):45-54.

Dumazedier, J. (1974). Sociology of Leisure. New York: Elesvier.

Edmonton Space and Science Centre. In Focus. Promotional Brochure. April, 1991

Ewert, A. (1985). Why people climb:The relationship of participant motives and experience level to mountaineering. Journal of Leisure Research, 17 (3):241-250.

Franchen, D.A., & van Raaij, W.F. (1981). Satisfaction with leisure time activities. Journal of Leisure Research. 13 (4):337-352.

Hawes, D.K. (1978). Satisfactions derived from leisure-time pursuits:An exploratory nationwide survey. Journal of Leisure Research, 10 (4):247-264.

Hawes, D.K., Talarzyk, V.W., & Blackwell, R.D. (1975). Consumer satisfactions from leisure time pursuits. Advances in Consumer Research, M.J. Schinger (Ed.) 2:817-836.

Hendee, J.C., & Burdge, R.J. (1974). The substitutability concept: Implications for recreation research and management. Journal of Leisure Research, 6 (2):157-162.

Henderson, K.A. (1981). Motivations and perceptions of volunteerism as a leisure activity. Journal of Leisure Research, 13 (3):208-218.

Hirschman, E.C. (1984). Leisure motives and sex roles. Journal of Leisure Research, 16 (3):209-213.

Hollender, J.W. (1977). Motivational dimensions of the camping experience. Journal of Leisure Research, 9 (2):133-141.

Howard, D.R., & Crompton, J.L. (1980). Financing, Managing and Marketing Recreation and Park Resources. Dubuque, Iowa. William C. Brown Co.

Iso-Ahola, S. (1980). The Social psychology of Leisure and Recreation. Iowa. Wm. C. Brown.

Kelly, J. (1987). Freedom to Be: A New Sociology of Leisure. New York: Macmillan.

Knopp, T.B. (1972). Environmental determinants of recreation behavior. Journal of Leisure Research, 4 (2):129-138.

Kotler, P. (1975). Marketing for Non-Profit Institutions. Englewood Cliffs, New Jersey, Prentice-Hall.

Kotler, P., & Levy, J. (1969). Broadening the concept of marketing. Journal of Marketing. 33 (January):10-15.

Kroening, L.L., & Jackson, E.L. (1983). Motivations of wilderness canoeists. Proceedings of the Third Canadian Congress on Leisure Research (pp. 85- 111). Edmonton, Alberta: Canadian Association for Leisure Studies.

London, M., Crandall, R., & Seals, G.W. (1977). The contribution of job and leisure satisfaction to quality of life. Journal of Applied Psychology, 62 (3):328-334.

Lounsbury, J.W., & Hoopes, L.L. (1985). An investigation of factors associated with vacation satisfaction. Journal of Leisure Research, 12 (1):1-13.

Mahoney, E.M. (1987, May). Marketing Parks and Recreation: The Need for a New Approach. Paper presented at the World Leisure Congress, Banff, Alberta

Marciani, L. (1985). Marketing for participation satisfaction. Journal of Physical Education, Recreation and Dance, 56 (Aug):42-44.

McKechnie, G.E. (1974). The psychological structure of leisure:Past behavior. Journal of Leisure Research, 6 (4):27-45.

Mercer, D. (1971). The role of perception in the recreation experience:A review and discussion. Journal of Leisure Research, 3 (4):261-276.

Mills, A.S. (1985). Participation motivations for outdoor recreation:A test of Maslow's theory. Journal of Leisure Research, 17 (3):184-199.

Patrick, G. (1916). The Psychology of Relaxation. Boston: Houghton-Mifflin.

Pierce, R.C. (1980). Dimensions of leisure. I:Satisfactions. Journal of Leisure Research, 12 (1):5-19.

Ragheb, M.G. (1980). Interrelationships among leisure participation leisure satisfaction and leisure attitudes. Journal of Leisure Research, 12 (2):138-149.

Ragheb, M.G. (1988). Leisure and recreation needs or motivations as a basis for program planning. Journal of Park and Recreation Administration, 6 (42):28-40.

Ragheb, M.G., & Beard, J.C. (1980). Leisure satisfaction:Concept, theory, and measurement. Social Psychological Perspectives on Leisure and Recreation. Springfield, Ill.: Thomas. pp.329-353.

Rinker, R. (1991, October). From the ground up. Athletic Business, pp.37-43.

Reichheld, F.F., & Sasser, Jr. W.E. (1990, September-October) Zero defections. Harvard Business Review , pp.105-111.

Tate, V.S. (1984). Convergent and discriminant validity of measures of job. Leisure, dyadic, and general life satisfaction by casual modeling methodology. Journal of Leisure Research, 16 (3):250-254.

McKeen, S. (1991, November 1) User-fee increases driving down use of city facilities. The Edmonton Journal. City Section.

Tinsley, H.E.A., Barrett, T.C., & Kass, R.A. (1977). Leisure activities and need satisfaction. Journal of Leisure Research, 9 (2):110-120.

Tinsley, H.E.A., & Kass, R.A. (1978). Leisure activities and need satisfaction:A replication and extension. Journal of Leisure Research, 10 (3):191-202.

Tinsley, H.E.A., & Kass, R.A. (1979). The latent structure of the need satisfying properties of leisure activities. Journal of Leisure Research, 11 (4):278-291.

Trafton, R.S., & Tinsley, H.E.A. (1980). An investigation of the construct validity of measures of job, leisure, dyadic and general life satisfaction. Journal of Leisure Research, 12 (1):34-44.

U.S. News and World Report (1981, August). Our Endless Pursuit of Happiness. U.S. News and World Report. pp. 58-67.

Appendix 1

Edmonton Space and Science Centre
Questionnaire on Leisure Participation

The questionnaire takes approximately 10 minutes to complete. When you are finished, **PLEASE** return the questionnaire to the front reception area. Results from the study will be used to determine ways of enhancing services to our customers.

All replies will be kept anonymous and in the strictest of confidence.

THANK YOU FOR YOUR COOPERATION

Edmonton Space
& Science Centre

A) Have you visited the Space and Science Centre before? **Circle only the most appropriate answer.**

Yes No

If yes, how often? **Circle only the most appropriate answer.**

a) once a year?
b) 2-5 times per year?
c) 6-9 times per year?
d)10-15 times per year?
e) 16-20 times per year?
f) more than 20 times per year?

B) Why are you visiting today?

1) _____
2) _____
3) _____

C) Why have you not visited the Space and Science Centre more often?

1) _____
2) _____
3) _____

D) Is this a family outing to the Space Science Centre? Yes No

E) What is the nearest intersection to your home?

_____

F) Are you : Male ( ) Female ( )

G) Please indicate how important each of the following are to you for visiting the Imax Theatre?

I visit the Imax Theatre as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1) I am able to expand my interests.	1	2	3	4	5
2) I am able to seek stimulation.	1	2	3	4	5
3) I am able to make things more meaningful to me.	1	2	3	4	5
4) I am able to learn about things around me.	1	2	3	4	5
5) I am able to satisfy my curiosity.	1	2	3	4	5
6) I am able to explore new ideas.	1	2	3	4	5
7) I am able to learn about myself.	1	2	3	4	5
8) I am able to expand my knowledge.	1	2	3	4	5
9) I am able to discover new things.	1	2	3	4	5
10)I am able to be creative.	1	2	3	4	5
11)I am able to use my imagination.	1	2	3	4	5
12)I am able to be with others.	1	2	3	4	5

I visit the Imax Theatre as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
13)I am able to build friendships with others.	1	2	3	4	5
14) I am able to interact with others.	1	2	3	4	5
15) I am able to meet new and different people.	1	2	3	4	5
16) I am able to help others.	1	2	3	4	5
17)I am able to have others think well of me for doing it.	1	2	3	4	5
18)I am able to reveal my thoughts, feelings, or physical skills to others.	1	2	3	4	5
19) I am able to influence others.	1	2	3	4	5
20) I am able to be socially competent and skillful.	1	2	3	4	5
21)I am able to gain a feeling of belonging.	1	2	3	4	5
22)I am able to gain other's respect.	1	2	3	4	5
23) I am able to get a feeling of achievement.	1	2	3	4	5
24) I am able to see what my abilities are.	1	2	3	4	5
25) I am able to challenge myself.	1	2	3	4	5

I visit the Imax Theatre as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
26) I am able to master things	1	2	3	4	5
27) I am able to be good at doing them.	1	2	3	4	5
28) I am able to be in a calm atmosphere.	1	2	3	4	5
29) I am able to avoid crowded areas.	1	2	3	4	5
30) I am able to slow down.	1	2	3	4	5
31) I am able to be alone.	1	2	3	4	5
32) I am able to relax mentally.	1	2	3	4	5
33) I am able to avoid the hustle and bustle of daily activities.	1	2	3	4	5
34) I am able to rest.	1	2	3	4	5
35) I am able to relieve stress and tension.	1	2	3	4	5
36) I am able to do something simple and easy.	1	2	3	4	5
37) I am able to unstructure my time.	1	2	3	4	5
38) I am able to get away from the responsibilities of my everyday life.	1	2	3	4	5

G) Please indicate how important each of the following are to you for visiting the Star Theatre?

I visit the Star Theatre as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1) I am able to expand my interests.	1	2	3	4	5
2) I am able to seek stimulation.	1	2	3	4	5
3) I am able to make things more meaningful to me.	1	2	3	4	5
4) I am able to learn about things around me.	1	2	3	4	5
5) I am able to satisfy my curiosity.	1	2	3	4	5
6) I am able to explore new ideas.	1	2	3	4	5
7) I am able to learn about myself.	1	2	3	4	5
8) I am able to expand my knowledge.	1	2	3	4	5
9) I am able to discover new things.	1	2	3	4	5
10)I am able to be creative.	1	2	3	4	5
11)I am able to use my imagination.	1	2	3	4	5
12)I am able to be with others.	1	2	3	4	5

I visit the Star Theatre as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
13)I am able to build friendships with others.	1	2	3	4	5
14) I am able to interact with others.	1	2	3	4	5
15) I am able to meet new and different people.	1	2	3	4	5
16) I am able to help others.	1	2	3	4	5
17)I am able to have others think well of me for doing it.	1	2	3	4	5
18)I am able to reveal my thoughts, feelings, or physical skills to others.	1	2	3	4	5
19) I am able to influence others.	1	2	3	4	5
20) I am able to be socially competent and skillful.	1	2	3	4	5
21)I am able to gain a feeling of belonging.	1	2	3	4	5
22)I am able to gain other's respect.	1	2	3	4	5
23) I am able to get a feeling of achievement.	1	2	3	4	5
24) I am able to see what my abilities are.	1	2	3	4	5
25) I am able to challenge myself.	1	2	3	4	5

I visit the Star Theatre as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
26) I am able to master things	1	2	3	4	5
27) I am able to be good at doing them.	1	2	3	4	5
28) I am able to be in a calm atmosphere.	1	2	3	4	5
29) I am able to avoid crowded areas.	1	2	3	4	5
30) I am able to slow down.	1	2	3	4	5
31) I am able to be alone.	1	2	3	4	5
32) I am able to relax mentally.	1	2	3	4	5
33) I am able to avoid the hustle and bustle of daily activities.	1	2	3	4	5
34) I am able to rest.	1	2	3	4	5
35) I am able to relieve stress and tension.	1	2	3	4	5
36) I am able to do something simple and easy.	1	2	3	4	5
37) I am able to unstructure my time.	1	2	3	4	5
38) I am able to get away from the responsibilities of my everyday life.	1	2	3	4	5

G) Please indicate how important each of the following are to you for visiting the Star Theatre Laser Light Show?

I visit the Star Theatre Laser Light Show as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1) I am able to expand my interests.	1	2	3	4	5
2) I am able to seek stimulation.	1	2	3	4	5
3) I am able to make things more meaningful to me.	1	2	3	4	5
4) I am able to learn about things around me.	1	2	3	4	5
5) I am able to satisfy my curiosity.	1	2	3	4	5
6) I am able to explore new ideas.	1	2	3	4	5
7) I am able to learn about myself.	1	2	3	4	5
8) I am able to expand my knowledge.	1	2	3	4	5
9) I am able to discover new things.	1	2	3	4	5
10)I am able to be creative.	1	2	3	4	5
11)I am able to use my imagination.	1	2	3	4	5
12)I am able to be with others.	1	2	3	4	5

I visit the Star Theatre Laser Light Show as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
13)I am able to build friendships with others.	1	2	3	4	5
14) I am able to interact with others.	1	2	3	4	5
15) I am able to meet new and different people.	1	2	3	4	5
16) I am able to help others.	1	2	3	4	5
17)I am able to have others think well of me for doing it.	1	2	3	4	5
18)I am able to reveal my thoughts, feelings, or physical skills to others.	1	2	3	4	5
19) I am able to influence others.	1	2	3	4	5
20) I am able to be socially competent and skillful.	1	2	3	4	5
21)I am able to gain a feeling of belonging.	1	2	3	4	5
22)I am able to gain other's respect.	1	2	3	4	5
23) I am able to get a feeling of achievement.	1	2	3	4	5
24) I am able to see what my abilities are.	1	2	3	4	5
25) I am able to challenge myself.	1	2	3	4	5

I visit the Star Theatre Laser Light Show as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
26) I am able to master things	1	2	3	4	5
27) I am able to be good at doing them.	1	2	3	4	5
28) I am able to be in a calm atmosphere.	1	2	3	4	5
29) I am able to avoid crowded areas.	1	2	3	4	5
30) I am able to slow down.	1	2	3	4	5
31) I am able to be alone.	1	2	3	4	5
32) I am able to relax mentally.	1	2	3	4	5
33) I am able to avoid the hustle and bustle of daily activities.	1	2	3	4	5
34) I am able to rest.	1	2	3	4	5
35) I am able to relieve stress and tension.	1	2	3	4	5
36) I am able to do something simple and easy.	1	2	3	4	5
37) I am able to unstructure my time.	1	2	3	4	5
38) I am able to get away from the responsibilities of my	1	2	3	4	5

H) Would you visit to the Edmonton Space and Science Centre again in the near future?

YES NO

If yes, for what reasons?

_____
_____
_____
_____
_____
_____
_____

If no, please explain:

_____
_____
_____
_____
_____
_____

I) What is the HIGHEST level of education you have completed?

Elementary School .....( )
Junior High School .....( )
Senior High School .....( )
Technical or vocational program .....( )
University undergraduate program .....( )
University graduate program .....( )
Other (please describe)

_____
_____
_____

J) Approximately what was the TOTAL INCOME for all members of your household in the past year? **Circle only the most appropriate answer.**

a) less than $15,000
b) $15,001 - $25,000
c) $25,001 - $35,000
d) $35,001 - $45,000
e) $45,001 - $60,000
f) over $60,000

PLEASE return the questionnaire to the front reception area.

THANK YOU FOR YOUR COOPERATION

Appendix 2

Edmonton Space and Science Centre
Questionnaire on Leisure Participation

The questionnaire takes approximately 10 minutes to complete. When you are finished, **PLEASE** return the questionnaire to the front reception area. Results from the study will be used to determine ways of enhancing services to our customers.

All replies will be kept anonymous and in the strictest of confidence.

THANK YOU FOR YOUR COOPERATION

Edmonton Space
& Science Centre

A) Have you visited the Space and Science Centre before? Circle only the most appropriate answer.

Yes No

If yes, how often? Circle only the most appropriate answer.

a) once a year?
b) 2-5 times per year?
c) 6-9 times per year?
d)10-15 times per year?
e) 16-20 times per year?
f) more than 20 times per year?

B) Why are you visiting today?

1) _____
2) _____
3) _____

C) Why have you not visited the Space and Science Centre more often?

1) _____
2) _____
3) _____

D) Is this a family outing to the Space Science Centre? Yes No

E) What is the nearest intersection to your home?

_____

F) Are you : Male ( ) Female ( )

G) After your visit to the Imax Theatre please indicate how satisfied you were with the following statements: (please circle the most appropriate answer)

I was satisfied with my visit to the Imax Theatre as:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1) I expanded my interests.	1	2	3	4	5
2) I found it stimulating	1	2	3	4	5
3) Things around me are more meaningful.	1	2	3	4	5
4) I learned more about the things around me.	1	2	3	4	5
5) I satisfied my curiosity.	1	2	3	4	5
6) I explored new ideas.	1	2	3	4	4
7) I learned more about myself.	1	2	3	4	5
8) I expanded my knowledge.	1	2	3	4	5
9) I discovered new things.	1	2	3	4	5
10) I became more creative.	1	2	3	4	5
11) I used my imagination.	1	2	3	4	5
12) I was able to be with others.	1	2	3	4	5
13) I was able to build friendships with others.	1	2	3	4	5

I was satisfied with my visit to the Imax Theatre as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
14) I was able to interact with others.	1	2	3	4	5
15) I was able to meet new and different people.	1	2	3	4	5
16) I had the opportunity to help others.	1	2	3	4	5
17) I was able to have others think well of me for going here.	1	2	3	4	5
18) I had the opportunity to reveal my thoughts, feelings, or physical skills to others.	1	2	3	4	5
19) I was able to influence others.	1	2	3	4	5
20) I felt socially competent and skillful.	1	2	3	4	5
21) I had a feeling of belonging.	1	2	3	4	5
22) I gained other's respect.	1	2	3	4	5
23) I had a feeling of achievement.	1	2	3	4	5
24) I had further insight into what my abilities are.	1	2	3	4	5
25) I challenged myself.	1	2	3	4	5
26) I feel better able to master things.	1	2	3	4	5

I was satisfied with my visit to the Imax Theatre as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
27) I was able to be good at doing things.	1	2	3	4	5
28) I was in a calm atmosphere.	1	2	3	4	5
29) I was able to avoid crowded areas.	1	2	3	4	5
30) I was able to slow down.	1	2	3	4	5
31) I was able to be alone.	1	2	3	4	5
32) I was able to relax mentally.	1	2	3	4	5
33) I was able to avoid the hustle and bustle of daily activities.	1	2	3	4	5
34) I was able to rest.	1	2	3	4	5
35) I was able to relieve stress and tension.	1	2	3	4	5
36) I did something simple and easy.	1	2	3	4	5
37) I enjoyed the unstructured time.	1	2	3	4	5
38) I appreciated getting away from the responsibilities of my everyday life.	1	2	3	4	5

G) After your visit to the Star Theatre please indicate how satisfied you were with the following statements: (please circle the most appropriate answer)

I was satisfied with my visit to the Star Theatre as:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1) I expanded my interests.	1	2	3	4	5
2) I found it stimulating	1	2	3	4	5
3) Things around me are more meaningful.	1	2	3	4	5
4) I learned more about the things around me.	1	2	3	4	5
5) I satisfied my curiosity.	1	2	3	4	5
6) I explored new ideas.	1	2	3	4	4
7) I learned more about myself.	1	2	3	4	5
8) I expanded my knowledge.	1	2	3	4	5
9) I discovered new things.	1	2	3	4	5
10) I became more creative.	1	2	3	4	5
11) I used my imagination.	1	2	3	4	5
12) I was able to be with others.	1	2	3	4	5
13) I was able to build friendships with others.	1	2	3	4	5

I was satisfied with my visit to the Star Theatre as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
14) I was able to interact with others.	1	2	3	4	5
15) I was able to meet new and different people.	1	2	3	4	5
16) I had the opportunity to help others.	1	2	3	4	5
17) I was able to have others think well of me for going here.	1	2	3	4	5
18) I had the opportunity to reveal my thoughts, feelings, or physical skills to others.	1	2	3	4	5
19) I was able to influence others.	1	2	3	4	5
20) I felt socially competent and skillful.	1	2	3	4	5
21) I had a feeling of belonging.	1	2	3	4	5
22) I gained other's respect.	1	2	3	4	5
23) I had a feeling of achievement.	1	2	3	4	5
24) I had further insight into what my abilities are.	1	2	3	4	5
25) I challenged myself.	1	2	3	4	5
26) I feel better able to master things.	1	2	3	4	5

I was satisfied with my visit to the Star Theatre as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
27) I was able to be good at doing things.	1	2	3	4	5
28) I was in a calm atmosphere.	1	2	3	4	5
29) I was able to avoid crowded areas.	1	2	3	4	5
30) I was able to slow down.	1	2	3	4	5
31) I was able to be alone.	1	2	3	4	5
32) I was able to relax mentally.	1	2	3	4	5
33) I was able to avoid the hustle and bustle of daily activities.	1	2	3	4	5
34) I was able to rest.	1	2	3	4	5
35) I was able to relieve stress and tension.	1	2	3	4	5
36) I did something simple and easy.	1	2	3	4	5
37) I enjoyed the unstructured time.	1	2	3	4	5
38) I appreciated getting away from the responsibilities of my everyday life.	1	2	3	4	5

G) After your visit to the Star Theatre Laser Light Show please indicate how satisfied you were with the following statements: (please circle the most appropriate answer)

I was satisfied with my visit to the Star Theatre Laser Light Show as:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1) I expanded my interests.	1	2	3	4	5
2) I found it stimulating	1	2	3	4	5
3) Things around me are more meaningful.	1	2	3	4	5
4) I learned more about the things around me.	1	2	3	4	5
5) I satisfied my curiosity.	1	2	3	4	5
6) I explored new ideas.	1	2	3	4	4
7) I learned more about myself.	1	2	3	4	5
8) I expanded my knowledge.	1	2	3	4	5
9) I discovered new things.	1	2	3	4	5
10) I became more creative.	1	2	3	4	5
11) I used my imagination.	1	2	3	4	5
12) I was able to be with others.	1	2	3	4	5
13) I was able to build friendships with others.	1	2	3	4	5

I was satisfied with my visit to the Star Theatre Laser Light Show as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
14) I was able to interact with others.	1	2	3	4	5
15) I was able to meet new and different people.	1	2	3	4	5
16) I had the opportunity to help others.	1	2	3	4	5
17) I was able to have others think well of me for going here.	1	2	3	4	5
18) I had the opportunity to reveal my thoughts, feelings, or physical skills to others.	1	2	3	4	5
19) I was able to influence others.	1	2	3	4	5
20) I felt socially competent and skillful.	1	2	3	4	5
21) I had a feeling of belonging.	1	2	3	4	5
22) I gained other's respect.	1	2	3	4	5
23) I had a feeling of achievement.	1	2	3	4	5
24) I had further insight into what my abilities are.	1	2	3	4	5
25) I challenged myself.	1	2	3	4	5
26) I feel better able to master things.	1	2	3	4	5

I was satisfied with my visit to the Star Theatre Laser Light Show as:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
27) I was able to be good at doing things.	1	2	3	4	5
28) I was in a calm atmosphere.	1	2	3	4	5
29) I was able to avoid crowded areas.	1	2	3	4	5
30) I was able to slow down.	1	2	3	4	5
31) I was able to be alone.	1	2	3	4	5
32) I was able to relax mentally.	1	2	3	4	5
33) I was able to avoid the hustle and bustle of daily activities.	1	2	3	4	5
34) I was able to rest.	1	2	3	4	5
35) I was able to relieve stress and tension.	1	2	3	4	5
36) I did something simple and easy.	1	2	3	4	5
37) I enjoyed the unstructured time.	1	2	3	4	5
38) I appreciated getting away from the responsibilities of my everyday life.	1	2	3	4	5

H) Would you visit to the Edmonton Space and Science Centre again in the near future?

YES NO

If yes, for what reasons?

_____
_____
_____
_____
_____
_____
_____

If no, please explain:

_____
_____
_____
_____
_____
_____

I) What is the HIGHEST level of education you have completed?

Elementary School .....( )
Junior High School .....( )
Senior High School .....( )
Technical or vocational program .....( )
University undergraduate program .....( )
University graduate program .....( )
Other (please describe)

_____
_____
_____

J) Approximately what was the TOTAL INCOME for all members of your household in the past year? **Circle only the most appropriate answer.**

a) less than $15,000
b) $15,001 - $25,000
c) $25,001 - $35,000
d) $35,001 - $45,000
e) $45,001 - $60,000
f) over $60,000

PLEASE return the questionnaire to the front reception area.

THANK YOU FOR YOUR COOPERATION